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ABSTRACT

Studies have found that students who live apart from one or both of their biological parents tend to do less well in school than students who live with both their biological parents. Some observers have speculated that differences in levels of parents' school involvement may account for observed disparities in academic outcomes. For this study, involvement at the high school level was defined as participating in at least three of four school activities: attending a general school meeting, attending regular parent-teacher conferences, attending a school or class event, or volunteering at school. Drawing on data from the 1996 National Household Education Survey, the study found that school involvement of biological parents is not the same across family types and that the involvement of stepparents is generally lower than that of biological parents: (1) biological mothers in stepfather families are less likely to be highly involved in their children's schools than biological mothers in two-biological-parent families; (2) biological fathers in stepmother families, on the other hand, are more likely to be highly involved in their children's schools than biological fathers in two-biological-parent families; (3) students living in father-only families are most likely of all students to have highly involved fathers; and (4) stepmothers are more likely than biological mothers, regardless of family type, to show low levels of involvement. Findings show that regardless of family type, parents' school involvement still makes a difference in students' school experiences. Fathers' involvement is associated with a higher likelihood of students getting mostly A's. Fathers' involvement in two-biological-parent families is associated with lower likelihood of students ever repeating a grade. School involvement of mothers, whether biological or step-, is associated with a lower likelihood of 6th through 12th graders ever being suspended or

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expelled. The study also found that although school involvement of parents who live apart from their children is lower than that of resident parents, some nonresident parents who have contact with their children are still involved in their children's schools. Although nonresident mothers are more likely than nonresident fathers to be involved, the benefits of their involvement are less apparent. (HTH)

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Fathers' and Mothers' Involvement in Their Children's Schools by Family Type and Resident Status

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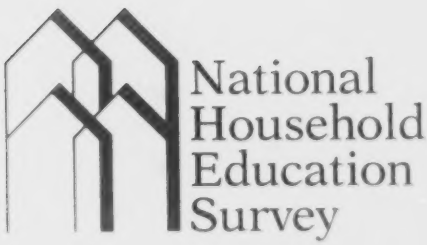
National Household Education Survey

Fathers' and Mothers' Involvement in Their Children's Schools by Family Type and Resident Status



Christine Winquist Nord
Westat

Jerry West
National Center for Education Statistics

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Highlights

Due to the prevalence of divorce and nonmarital childbearing in the United States, many students enrolled in grades 1 through 12 do not live with both their biological parents (Furstenberg and Cherlin 1991). In 1996, 57 percent of students in these grades lived with two biological parents, while the remaining 43 percent lived in some other family living arrangement. Studies have found that students who live apart from one or both of their biological parents tend to do less well in school than students who live with both their biological parents (Zill 1996; McLanahan and Sandefur 1994; Lee 1993). Some observers have speculated that differences in levels of parents' school involvement may help to account for the observed disparities.

Data from the 1996 National Household Education Survey (NHES:96) reveal that the school involvement of biological parents is not the same across family types and that the involvement of stepparents is generally lower than that of biological parents. In this report, high school involvement is defined as participating in at least three of four school activities that most schools typically offer: attending a general school meeting; attending a regularly scheduled parent-teacher conference; attending a school or class event; or volunteering at school. Low school involvement is participating in none or only one such activity.

- Biological mothers in stepfather families are less likely to be highly involved in their children's schools than biological mothers in two-biological-parent families. Forty-five percent of students living with a biological mother and a stepfather have a mother who is highly involved in their schools compared to 58 percent of students living with both biological parents. Once family background characteristics such as students' age, sex, and race/ethnicity, household income, mother's employment, and parent education are taken into account, biological mothers in stepfather families remain less likely to be highly involved in their children's schools than mothers in two-biological-parent families and are also less likely to be highly involved than mothers in mother-only families.

- Biological fathers in stepmother families, on the other hand, are more likely to be highly involved in their children's schools than biological fathers in two-biological-parent families. Thirty-five percent of students living with a biological father and a stepmother have a father who is highly involved in their schools compared to 28 percent of students living with both biological parents.

- Students living in father-only families are the most likely of all students to have highly involved fathers—46 percent of such students have fathers who are highly involved in their schools.

- Stepmothers are more likely than biological mothers, regardless of family type, to show low levels of involvement in their children's schools. Forty percent of students living in stepmother families have a stepmother with low involvement in their schools, while 28 percent of students in stepfather families, 27 percent in mother-only families, and 20 percent in two-biological-parent families have mothers with low involvement in their schools. The same is true of stepfathers, but stepfathers show even lower levels of involvement in their stepchildren's schools than do stepmothers. Sixty-two percent of students living with a stepfather have a stepfather who participated in none or only one activity in their schools during the current school year.

Although the level of parents' school involvement varies by whether they are biological parents or stepparents and whether they live in two-biological-parent families, single-parent families, or stepfamilies, parents' school involvement still seems to make a difference in students' school experiences.

- Fathers' involvement in school is associated with a higher likelihood of students getting mostly A's. This is true for fathers in two-biological parent families, for stepfathers, and for fathers heading single-parent families. There appears to be no association, however, between fathers' involvement in stepmother families and the odds that students get mostly A's.

- Fathers' involvement in two-biological-parent families is associated with a lower likelihood of students ever repeating a grade. There is no evidence, though, that the involvement of stepfathers or of fathers in father-only families is related to this.

- Biological mothers' involvement, regardless of whether they are living in two-biological-parent families, stepfather families, or mother-only families, is associated with a higher likelihood of students getting mostly A's. The involvement of mothers in mother-only families is also related to lowered odds of their children ever repeating a grade.

- The school involvement of mothers is associated with a lower likelihood of 6th- through 12th-graders ever being suspended or expelled. This is true for the involvement of biological mothers and of stepmothers.

Although the school involvement of parents who live apart from their children is lower than that of resident parents, some nonresident parents who have contact with their children are involved in their children's schools.

- Thirteen percent of students in stepfather families and 19 percent in mother-only families who have had contact with their nonresident fathers in the last year have nonresident fathers who participated in at least two of the four school activities.

- Nonresident mothers are more likely than nonresident fathers to be involved in their children's schools. Twenty-seven percent of students in stepmother families and 43 percent living in father-only families who have had contact with their nonresident

mothers in the last year have nonresident mothers who participated in at least two of the four school activities.

Although nonresident mothers are more likely than nonresident fathers to be involved in their children's schools, the benefits of their involvement for the students are not as apparent.

- Students are more likely to get mostly A's and are less likely to have ever repeated a grade or to have ever been suspended or expelled if their nonresident fathers have some involvement in their schools. Similarly, students are more likely to get mostly A's if their nonresident mothers have participated in one activity in the last year.

The NHES:96 has several strengths for studying parental involvement. First, it contains a large, nationally representative sample of students in grades 1 through 12. Second, it collects information about the school involvement of both resident and nonresident mothers and fathers. The NHES:96, however, collects data at a single point in time. Thus, it cannot be used to establish causal connections between parental involvement and student outcomes. It can only suggest such connections and leave it to studies based on longitudinal data to examine the associations more closely. Moreover, the household respondent is the one who reports on the school involvement of the resident and nonresident parents. In most cases, mothers are the respondents and they are the ones reporting on the involvement of the resident and nonresident fathers.

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Introduction

Due to the prevalence of divorce and nonmarital childbearing in the United States, nearly half of all children are likely to spend at least part of their childhood living apart from one or both of their biological parents (Furstenberg and Cherlin 1991). The high percentage of children who will not live with both parents throughout childhood is reflected in the family living arrangements of students enrolled in grades 1 through 12. In 1996, an estimated 57 percent of students in these grades lived with both their own parents (table 1). The remaining 43 percent lived in some other family arrangement. Just under a quarter (24 percent) of all students in these grades lived in mother-only families. Nine percent lived in stepfather families. Four percent lived with neither parent.[1] Three percent of students in grades 1 through 12 lived with their father with no mother present, and 2 percent lived in stepmother families. Research consistently finds that children living in these nontraditional families[2] do less well in school and experience more behavior problems than children living with both their own parents (Zill 1996; McLanahan and Sandefur 1994; Lee 1993). Why they do less well, however, is not fully understood.

Some researchers suggest that parent involvement in their children's education may help to explain differences in student outcomes between children living in traditional and in nontraditional families (e.g., Zill 1996; Lee 1993). Supporting the notion that parental involvement may be an important explanatory factor, several studies have found that parents in stepparent and in single-parent families tend to be less involved in their children's education than parents in two-biological-parent families (Bogenschneider 1997; Zill 1994; Zill and Nord 1994; Lee 1993; Astone and McLanahan 1991). Policymakers and educators agree that family involvement in children's education is vital to children's school success (Riley 1994). Indeed, two of the National Education Goals stress the important role of parents in their children's education (National Education Goals Panel 1998). Goal 1, the *readiness* goal, emphasizes the role of parents as their children's first teachers. Goal 8, aimed at schools, emphasizes the need to promote parent-school partnerships that will increase parental involvement in their children's schooling. Extensive research exists on the importance of parental involvement in children's education

[1] The majority (84 percent) of the children living with neither parent lived with a grandparent or other relative.

[2] By nontraditional families, we mean stepfamilies, single-parent families, and families maintained by nonparent guardians. This usage is consistent with that used by other researchers (e.g., Zill 1996; Lee 1993). Traditional families are those headed by two biological parents. We also include families headed by two adoptive parents as traditional families. To simplify the discussion, we use the terms *traditional* and *two-biological-parent families* interchangeably. Two adoptive parents are always included when we refer to two-biological-parent families.

Table 1.—Number and percentage of students in different living arrangements: Students in grades 1-12, 1996

Living arrangement	Number (thousands)	Percent
Two biological or adoptive parents	**26,022**	**57.2**
Two biological	25,531	56.1
Two adoptive	491	1.1
Biological mother/step or adoptive father	**4,275**	**9.4**
Biological mother/stepfather	3,886	8.5
Biological mother/adoptive father	389	0.9
Biological father/step or adoptive mother	**984**	**2.2**
Biological father/stepmother	946	2.1
Biological father/adoptive mother	38	0.1
Mother only	**11,007**	**24.2**
Biological mother	10,804	23.7
Adoptive mother	174	0.4
Stepmother	29	0.1
Father only	**1,362**	**3.0**
Biological father	1,272	2.8
Adoptive father	54	0.1
Stepfather	36	0.1
Other arrangement	**1,875**	**4.0**
Two foster parents	63	0.1
Foster mother only	149	0.3
Foster father only	13	0.0
Other nonparental arrangement	1,650	3.6

NOTE: Because of rounding, details may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

(see Henderson and Berla 1994, and Henderson 1987, for reviews of the research).[3] Children whose parents are involved in their schools by doing such things as attending school events and back-to-school nights or volunteering are more likely to do well in school, to remain in school, and to exhibit fewer behavioral problems than children whose parents are not involved.

[3] Parents can be involved in their children's education in a variety of ways. Epstein (1990), for example, described six types of involvement: (1) basic obligations of families, such as providing for the health and nutrition of children; (2) basic obligations of schools to communicate with families; (3) parental involvement at school, such as volunteering and attending school events; (4) parent involvement at home, such as providing learning activities at home; (5) parent participation in school decision making; and (6) collaboration and exchanges with community organizations to increase family and student access to community resources. The relative influence of these different types of involvement for students school success is an empirical question not addressed by this report. This report only examines involvement at school.

A limitation of most prior studies examining parental involvement by living arrangement is that they consider parental involvement as a whole without distinguishing the involvement of stepparents from that of biological parents. That is, they combine the involvement of stepparents and biological parents to characterize involvement of stepfamilies without looking at differences between stepparents and biological parents. By combining the involvement of stepparents and biological parents, the implicit assumption is that involvement will produce the same effects no matter what the source. It is not clear, though, that high involvement by a stepparent has the same positive influence on student outcomes as high involvement by a biological parent. Learning more about the involvement of stepmothers, stepfathers, and nonparent guardians may shed light on why students from nontraditional families tend to experience more difficulties in school than students living with both their parents. Such analyses, however, require that information on involvement be collected separately about mothers, fathers, stepmothers, stepfathers, and nonparent guardians. Until recently, most studies did not collect this information.

Virtually ignored in the literature on parental involvement in schools is the involvement of parents who do not live with their children. We refer to these parents as nonresident or noncustodial parents. Almost all research and policy efforts related to encouraging parental involvement in school have focused on resident parents and their involvement in their children's learning. A recent study, however, suggests that the involvement of nonresident fathers can improve student outcomes (Nord, Brimhall, and West 1997). That study, however, did not examine whether nonresident mothers' involvement in their children's schools was associated with improved student outcomes. Relatively little research has examined the role of nonresident mothers in their children's lives. Yet, fathers are more likely now than in the past to be awarded custody of their children following marital disruption (Meyer and Garasky 1993), so the proportion of children not living exclusively or solely with their mothers is growing.

Research Questions

This report examines questions at the intersection of three separate lines of research: research on the effects of family structure on children's well-being, research on the importance of parental involvement to student outcomes, and research on the effects of nonresident parents' involvement on children's well-being. In addition, it provides new information on an understudied topic: the involvement of nonresident mothers in their children's lives. It uses a nationally representative data set, the 1996 National Household Education Survey (NHES:96), to address four sets of research questions. The first set explores differences in parents' school involvement by family type (two-biological-parent family,

stepparent family, single-parent family, or nonparent guardian family) and parent type (biological, stepmother or stepfather, or nonparent guardian). This set of questions examines whether and how the involvement of biological mothers and fathers differs depending upon whether they are in traditional or nontraditional families. This set also compares the involvement of biological and nonbiological mothers and fathers in the different family types. The second set of questions examines the association between resident mothers' and fathers' involvement in school and student outcomes, and how the association differs by family and parent type. This set of questions explores whether the association between parent involvement and student outcomes is different for biological and stepparents, and whether it is different for biological parents living in different family types. The third set of research questions looks at nonresident mothers' and fathers' involvement in their children's schools by the students' family type. The last set of research questions examines the association between nonresident fathers' and mothers' school involvement and student outcomes. Because nonresident parents can only be involved in school if they maintain contact with the students, this set of research questions also examines whether it is the nonresident parents' contact with the student or school involvement that is the most strongly associated with student outcomes. The following research questions are addressed:

Differences in parents' school involvement by family and parent type

- How does the level of school involvement of stepmothers, stepfathers, and nonparent guardians compare to the level of involvement of biological mothers and fathers living in traditional two-parent families? How does their involvement compare with the level of involvement of biological parents living in mother-only and in father-only families? How does the level of involvement of biological parents living in stepfamilies compare to that of biological parents living in traditional families?

- Do observed differences in involvement by family type persist after taking into account student and family background characteristics?

The association between resident mothers' and fathers' school involvement and student outcomes by family and parent type

- Does resident parents' involvement in school help to account for poorer student outcomes among students living in nontraditional families?

- Does the involvement of stepmothers and stepfathers show the same association with student outcomes as the involvement of biological parents?

- Is the association between biological mothers' and fathers' involvement and student outcomes the same across the different family types?

Differences in nonresident mothers and fathers school involvement by family type

- To what extent are nonresident mothers and fathers involved in their children's schools? Does the level of involvement of nonresident mothers and fathers differ depending upon whether the resident parent is remarried or whether the students live with neither parent? How does the level of school involvement of nonresident mothers and fathers compare to that of resident biological parents in two-parent families? How does their involvement compare to the involvement of biological parents in mother-only and in father-only families? How does their involvement compare to the involvement of stepmothers, stepfathers, and nonparent guardians?

- What is the relationship between the amount of contact nonresident mothers and fathers have with their children and their level of involvement in their children's schools?

The association between nonresident mothers' and fathers' school involvement and student outcomes

- Is the involvement of nonresident mothers and fathers associated with students' school performance?

- After taking into account the amount of contact between nonresident parents and their children, does the involvement of nonresident parents continue to be associated with students' school performance? Which is more important for students' school performance: frequency of contact or their involvement with their children's schools?

Review of Existing Research

Extensive literature reviews on the importance of school involvement to children's schooling already exist (see Henderson and Berla 1994, and Henderson 1987) so that literature is not reviewed here. Instead, we summarize what existing research says about why family structure may affect children's well-being and what is known about the association between nonresident mothers' and fathers' involvement in their children's lives and children's well-being.

Potential explanations for observed effects of family structure on children's well-being

Children living with two biological parents enjoy many advantages compared to children living in other family arrangements (Zill 1996; McLanahan and Sandefur 1994). Such children tend to be healthier (Coiro, Zill, and Bloom 1994; Dawson 1991) and are less likely, according to their parents, to

have developmental delays, learning disabilities, or emotional or behavioral problems (Coiro, Zill, and Bloom 1994; Dawson 1991). They are also less likely than other children to have ever repeated a grade, to have been suspended or expelled (Zill 1996; Dawson 1991), or to drop out of school (McLanahan and Sandefur 1994). On average, they have higher grades and test scores than other children (Lee 1993). Adolescents living with both their parents are also less likely than other adolescents to smoke marijuana, use other illicit drugs, and experience bouts of drunkenness (Hoffmann and Johnson 1998).

In trying to account for why children in nontraditional families do less well than children in traditional families in many areas of their lives, researchers draw on a variety of theoretical perspectives. These include biological/genetic, family structure; family processes and parental roles; family resources, and gender theory perspectives. These perspectives are not mutually exclusive. Each of these theoretical perspectives is summarized below. They are intended to provide a way of thinking about the data that are presented in this report. NCES and the authors do not endorse any particular explanation. Moreover, in the report, we do not try to assess the relative merits of any one perspective. It is not our intention to test or evaluate the different competing explanations.

Biological/genetic explanations. There are several different explanations based on biology and genetics. According to one explanation, the fundamental function of a family is to produce and raise one's own children, thereby ensuring biological continuity (Becker 1981; Rossi 1978). This perspective suggests that biological parents have a stronger incentive than stepparents to invest time, energy, money, and other resources in their children (Cooksey and Fondell 1996; Popenoe 1994; Daly and Wilson 1980). Existing research suggests that stepfathers are less likely than biological fathers to spend time with their children (Cooksey and Fondell 1996; Thomson, McLanahan, and Curtin 1992; Marsiglio 1991). Similarly, children report that stepfathers are less likely than biological fathers to provide support, exert control, or discipline them (Amato 1987). One hypothesis stemming from these findings is that in stepfamilies, stepparents will be less involved than biological parents in the students' schools. Following the same logic, unrelated guardians could also lack the biological drive to expend resources and energy on their children and, thus, should also have lower involvement in the students' schools than biological parents in other family types. Although grandparents and other relatives are genetically linked to the children, the link is not as strong as for parents. They are also older and may lack the energy to be involved. Thus, it is likely that nonparental guardians will also have lower involvement in school than biological parents.

Rossi (1978) argues that there are also biologically driven differences in the strength of the attachments that mothers and fathers form with their infants. She hypothesizes that aspects of human behavior that are most closely linked to the reproductive function and long-term survival of the species have the greatest biological drives associated with them. The mother-infant relationship is one such behavior. Mothers are more intimately connected to the whole reproductive process than fathers because they carry the child to term, while fathers are more distant from the process after the sexual act. Furthermore, human infants are dependent upon their parents for an extended period of time. Because of nursing, they are especially dependent upon their mothers. Thus, Rossi argues, from an evolutionary perspective, it is essential for long-term survival that mother-infant bonds be especially strong. In support of this notion, some researchers find that fathers' relationships with their children are mediated by their relationship with the children's mothers (White 1998). When marriages are weak, fathers' relationships with their children suffer more than mothers' relationships with their children. There also tends to be a cooling of father-child relationships after divorce that appears to be due to the cooling of children's feelings (White 1998). Children are more likely to remain emotionally close to their nonresident mothers than to their nonresident fathers (Peterson and Zill 1986). One-third of children ages 12 to 16 reported being close to their nonresident fathers, while over half reported being close to their nonresident mothers.[4] These results support the view that children tend to be more emotionally dependent upon mothers than fathers. It is plausible to conclude that stronger emotional bonds would lead to greater involvement. We know that in two-biological-parent families, mothers are more likely to be involved in their children's schools than fathers (Harris, Furstenberg, and Marmer 1998; Nord, Brimhall, and West 1997). Of course, their higher involvement could be due to other factors, such as the societal expectation that mothers will be more involved. However, differences in the strength of the parent-child bond may reinforce the tendency for mothers to be more highly involved than fathers in children's lives. It is also reasonable to hypothesize that the relative strength of the parent-child bond relates to the effectiveness of involvement. In that case, we might expect biological mothers' involvement to exert a stronger influence than fathers' involvement on student outcomes.

Another biological/genetic explanation is related to the longstanding nature versus nurture argument. Recent research in human behavioral genetics suggests that, on average, genetics accounts for approximately half the variance in many personality traits and behaviors (Plomin et al. 1997). Some adults, because of their personalities and innate behaviors, may be more prone to divorce and remarriage. These same features of their personalities may also increase the risk of poorer outcomes for their children

[4] Closeness was measured by using a scale based on the children's responses to four items: how close they feel to the parent, how often they do things with the parent, the amount of affection they receive, and how much they would like to be like the kind of person the parent is.

(Plomin et al. 1997; Zill 1994). A related link between family structure and children's outcomes is through direct genetic inheritance. For example, an inherited personality disorder that increases family conflict and the risk of divorce can also be passed onto the children leading to increased behavior problems (Plomin et al. 1997). In this case, at least part of the behavior differences by family type would be due to genes rather than solely to the process of divorce or to living in a nontraditional family.

Differences in school achievement by family structure can also be partly explained by genetic differences. School achievement has a substantial genetic component (Plomin et al. 1997). That is, smart students tend to have smart parents. In addition, studies have found that divorce is not randomly distributed throughout the population. More educated parents are less likely to divorce than less educated parents (Nord 1988; Bumpass 1984). According to this perspective, student achievement is likely to be higher in traditional than in nontraditional families because parents in traditional families tend to be more educated (having higher ability), and their high ability tends to be passed on to their children. Of course, more educated parents also tend to have other resources, such as higher incomes, that they can use to enhance their children's school success by providing enrichment classes, books, and other learning opportunities (U.S. Bureau of the Census 1998).

Family structure. Family structure explanations focus on the number of parents in the household. Two-parent households, according to this perspective, are structurally stronger for a variety of reasons (Downey 1994; Amato 1993). The parents can divide up tasks of raising children and maintaining the home. The authority structure is stronger because there are two parents to monitor and ensure that rules are followed. The parents can give breaks to each other or provide support if the other is ill or tired. Children gain greater intellectual stimulation from the presence of two distinct adult personalities. They may get more adult attention because there are two parents to devote attention to them. They are also exposed to male and female role models and to a model of adult male-female relationships. According to this perspective, stepparent families, because there are two parents, should have higher levels of parental involvement than single-parent families. We know from existing studies, however, that levels of involvement are not higher in stepfamilies relative to single-parent families (Lee 1993). Similarly, like children in single-parent families, children in stepfamilies show elevated risks of maladjustment and school failure compared to children living with both their biological parents (Zill 1996; Cherlin and Furstenberg 1994; Zill 1988). Thus, although there are clearly advantages to having two parents, the lack of a parent cannot be the sole explanation for differences between two-parent families and single-parent families.

Family processes and parental roles. Many researchers view family structure as a proxy for other processes within the family that affect children's lives (Dawson 1991). Children in stepparent families, for example, have experienced at least two transitions in their lives: the divorce of their biological parents, and the remarriage of the parent with whom they live. In addition, they have in all likelihood been exposed to some level of marital conflict during the divorce process. Some children in stepfamilies have experienced the death of a parent prior to the remarriage of their other parent. Children in single-parent families may have only experienced one event—the divorce, separation, or death of their parents. Alternatively, they may live with a never-married mother. Thus, these children may have been exposed to less emotional turmoil than children living in stepfamilies. During the course of breaking up or following the death of a spouse, parents are often preoccupied with their own difficulties. They may be short-tempered with their children or simply not have the energy to supervise them as they otherwise would (McLanahan and Sandefur 1994). As parents begin to establish new relationships, the children may find that they are competing with stepparents and romantic partners of their parents for the parents' time and attention (McLanahan and Sandefur 1994). The lower parental involvement and the poorer student outcomes in nontraditional families, according to this perspective, are due to the stresses and strains associated with divorce or death, single parenthood, and remarriage.

Another explanation has to do with the extent to which the role of stepparent has been institutionalized (White 1994; Cherlin 1978). According to this view, the role of stepparent is rarely accorded the same status as that of parent. Society acknowledges the rights and responsibilities of parents much more fully than that of stepparents. For example, the legal system treats stepparents differently than parents with respect to inheritance laws and child support laws (Fine and Fine 1992 as cited by White 1994). If stepparents leave no will or simply leave their estate to "their children," courts generally assume that the stepparents did not intend to leave any of their estate to their stepchildren (Fine and Fine 1992 as cited by White 1994). Similarly, if stepparents get divorced, they are generally under no obligation to pay child support to their stepchildren. In fact, in many states stepparents are not obligated to support the stepchildren that they live with (Fine and Fine 1992 as cited by White 1994). The reverse is true for biological parents. They are obligated to support their children regardless of whether they live with them or not, and courts, if there is no will, assume that the children were intended to inherit the estate. This perspective suggests that stepparents will be less involved than biological parents in their children's schools because normative pressures to act like parents are weak.

It is not only society that views stepparents differently than parents but also parents and stepparents themselves. Parents generally expect to be parents for life. They derive pleasure and self-

esteem from being parents (White 1994). Being a parent is usually considered one of the most important roles in their lives (White 1994). The same is not true of stepparents. Their relationship to their stepchildren is highly dependent on their relationship to the children's natural parents (White 1994). When stepparents separate from or divorce their stepchildren's biological parent, that action often terminates the relationship between stepparents and their stepchildren. Similarly, when asked to report on the importance of being a parent, stepparents rate this role much less highly than do biological parents (White 1994). This result leads to the hypothesis that stepparents will have lower levels of involvement than biological parents in students' schools because they are not as invested in the parental role.

Family resources explanations. This perspective posits that the more resources, broadly defined, children have access to, the more optimal will be the children's outcomes (Zill 1994). Resources include what economists refer to as human and financial capital, as well as to what James Coleman (1988) calls social capital. Thus, children should fare better when there are two parents who can devote time to them, when there are fewer siblings competing with them for parental time, when parental education and family income are higher, and when there are other resources in the home such as books.

Financial resources available to students may well vary by family structure. Numerous studies have examined the economic fragility of many single-parent families, especially those headed by single mothers (e.g., McLanahan and Sandefur 1994). Students in stepfamilies, though, may also have access to less financial resources than students living with both biological parents. For example, if stepparents are obligated to pay alimony to their former spouses or child support for children outside the household, the amount of income available to the student's family and to the student is reduced.

Drawing on the social capital theory, the density of social relations within the family and between the family and outside institutions and individuals may affect how well the familial resources are transmitted to the children (Coleman 1988). Social capital is facilitated in closed systems, that is, when each member of the system has a link to other members in the system (Coleman 1988). In this respect, stepfamilies are inherently weak (Hetherington and Jodl 1994; White 1994). Stepparents enter a family where there is a pre-existing bond between the natural parent and the children. The family has a history, and the roles, expectations, and patterns of family life are established. The stepparent generally has no bond with the stepchildren, though bonds may develop in the relationships over time. Moreover, the stepparent must learn the often unspoken rules and expectations of the household. There may also be a nonresident parent with links to the parent and the children, but none to the stepparent. The nonresident parent may interfere with the stepparent's relationship with the stepchildren and even with the resident

parent (Hetherington and Jodl 1994; White 1994). Because stepparents initially have no direct bond with the children, it is plausible to consider that they will be less likely than biological parents to be involved in the children's schools. Indeed, the children may not want the stepparent to be involved. The presence of the stepparent may also deter the involvement of the nonresident parent or, alternatively, the involvement of the nonresident parent may deter the involvement of the stepparent. Regardless, the influence of parental involvement, irrespective of the source, may be weaker because the system is open.

Gender theory explanations. Some researchers theorize that women may be biologically disposed (Rossi 1978) or are socially instilled (Downey 1994; Thomson, McLanahan, and Curtin 1992) to be more nurturing than men. The claim is that women are socialized to meet the expressive needs of children, to be communicators, and show warmth and affection (Thomson, McLanahan, and Curtin 1992). Men, on the other hand, are socialized to be breadwinners, enforcers of rules, and disciplinarians (Thomson, McLanahan, and Curtin 1992). This view suggests that men and women will perform different functions within the family. As noted above, the research on differences in fathers' and mothers' involvement in school finds that in two-parent families, fathers are less likely to be involved than mothers. Thus, fathers and mothers appear to specialize in different activities, with mothers being more likely to be involved in school functions.

With respect to stepfamilies, the gender perspective hypothesizes that stepfathers will experience greater difficulties establishing the parenting role because of their weaker expressive and parenting skills (Thomson, McLanahan, and Curtin 1992). According to this view, stepfathers will have lower involvement than stepmothers in their stepchildren's schools and the effect of stepfathers' involvement on student outcomes is likely to be weaker than that of stepmothers. Stepfathers may also tend to have lower school involvement than stepmothers because they are men. Contrary to this perspective, however, several studies have found that stepmother families are more problematic than stepfather families (Zill 1996; White 1994; Hetherington and Jodl 1994; and Lee 1993). Zill (1996), for example, found that students in father-stepmother families had higher misbehavior scores than students in mother-stepfather or in single-parent families. These results may also be due to a selection process, however, where children with discipline problems are sent to live with their fathers who are deemed better able to handle them (Zill 1996). If there were such a selection process at work, students living in stepmother families and father-only families would tend to show higher behavior problems than students living with their mothers. In support of this idea, a recent study found that adolescents in father-custody families—whether father-stepmother or father-only families—had the highest risk of drug use (Hoffmann and Johnson 1998).

Stepmother-stepchild relationships are often poorer than stepfather-stepchild ones (White 1994). The mother-child bond is often strong and emotionally intricate. It appears to be difficult for stepmothers to establish similar bonds (White 1994; Hetherington and Jodl 1994). One study found that mother-stepfather families and two-biological-parent families showed a distinctive gender division of roles, but that biological fathers and stepmothers showed similar levels of activities in the household (Thomson, McLanahan, and Curtin 1992). This pattern lends support to the view that stepmothers experience greater difficulties filling the maternal role than do stepfathers the paternal role.

The gender perspective also hypothesizes that single mothers will be less effectual at enforcing rules and maintaining control than single fathers because they have not been socialized to accomplish these tasks. Moreover, single fathers and single mothers may invest different types of resources in their children that are reflective of the parents' socialized role (Downey 1994). That is, fathers may be more likely to invest economic resources, while mothers may be more likely to invest interpersonal resources in their children (Downey 1994). If these theories are correct, single mothers will show higher involvement than single fathers in children's schools. Moreover, because interpersonal relations are their specialty, the influence of the involvement of single mothers should be stronger than that of single fathers. Studies find, however, that fathers who head single-parent families take on many of the roles of the mother and, similarly, mothers in single-parent families take on the roles of the father (Thomson, McLanahan, and Curtin 1992; Nord, Brimhall, and West 1997). That is, the distinctive division of household labor that is apparent in two-biological-parent and stepfather families is not seen when single fathers are contrasted with single mothers. In single-parent families, for example, fathers' heading father-only families have levels of involvement in their children's schools that are similar to those of mothers in mother-only families (Nord, Brimhall, and West 1997). Furthermore, the involvement of mothers and fathers in single-parent families, though lower than that of mothers in two-parent families, is more similar to that of mothers in two-parent families than it is to fathers in two-parent families. Even so, there appears to be a tendency for single fathers to specialize in economic investments for their children and for single mothers to specialize in more interpersonal resources, such as shared activities with the children and involvement in school (Downey 1994). Also, both single mothers and single fathers exert less control over their children than do married parents (Thomson, McLanahan, and Curtin 1992). This may be due to the structural weakness of being a single parent.

Nonresident Mothers' and Fathers' Involvement in Children's Lives and Children's Well-Being

There is increasing interest in the role that nonresident parents play in their children's lives. Some programs and policymakers are beginning to recognize that nonresident parents represent a potentially valuable resource to their children, not only in economic terms but in other ways as well. Massachusetts, for example, recently enacted a law that requires public elementary and secondary schools to provide nonresident parents with copies of report cards, results of intelligence and achievement tests, referrals for special needs, and other information about their children (State of Massachusetts 1998).[5] This law recognizes that many children do not live with both their parents and that even parents living apart from their children have an important role to play in their children's lives. Similarly, Early Head Start is encouraging the involvement of fathers, regardless of whether they live with their children, in program activities (Cabrera, Boller, and Lamb 1999; Raikes et al. 1999).

Research evidence on the importance of nonresident parents to children's lives, though, is mixed. There is general agreement that payment of child support is important (Amato and Gilbreth 1999; Nord and Zill 1996; McLanahan and Sandefur 1994; Furstenberg and Cherlin 1991). It reduces the economic hardship in a family, and it has been linked to greater educational attainment and academic achievement (Knox and Bane 1994; Baydar and Brooks-Gunn 1994) and to lower levels of school behavior problems (McLanahan et al. 1994). Other forms of involvement, though, are not consistently related to children's well-being. Several studies, for example, have found no association between nonresident fathers' involvement with their children and an assortment of measures of child well-being (King 1994; Furstenberg, Morgan, and Allison 1987). But some studies have found that continued involvement is related to better student outcomes, improved psychological scores, fewer behavioral problems, and better peer relationships (Nord, Brimhall, and West 1997; Kelly 1993; Wallerstein and Kelly 1980).

Frequency of contact with the nonresident father is generally the way in which involvement is measured. New research suggests, however, that it is not contact, per se, that is important, but rather active involvement in the children's lives and schools that matters (Amato and Gilbreth 1999; Nord, Brimhall, and West 1997). For example, a recent meta-analytic review of 57 studies that examined the

[5] To receive this information, nonresident parents must annually submit a written request to the schools. They must also send the schools a certified copy of the probate court's order or judgment indicating that they are entitled to unsupervised visitation or a certified copy of a judge's order stating that the information be made available to them.

links between nonresident fathers' involvement and children's well-being found that frequency of contact was generally not related to child outcomes but that measures that tapped dimensions of authoritative parenting were linked to children's well-being. (Amato and Gilbreth 1999). These measures included giving advice, monitoring children's school performance, providing explanations for rules, and helping with homework.

Because most nonresident parents are men, fewer studies have examined the connection between nonresident mothers' involvement and children's well-being. Several studies have shown, however, that nonresident mothers are more likely than nonresident fathers to maintain contact with their children (Nord, Brimhall, and West 1997; Nord and Zill 1996; Furstenberg et al. 1983). It is not known, though, whether the greater contact with mothers is beneficial for children. It is possible that the same inconsistent pattern of association observed for fathers may occur with mothers as well. Studies have also found that nonresident mothers are more likely than nonresident fathers to be involved in their children's schools (Nord, Brimhall, and West 1997). Again, however, whether their greater involvement benefits children is not known. In stepmother families, it is plausible to consider that their greater involvement could strain relations within the family.

Data Source

This report is based on data from the 1996 National Household Education Survey (NHES:96). The NHES is a random-digit-dial (RDD) telephone survey that uses computer-assisted telephone interviewing (CATI) technology to collect data on high priority topics that could not be addressed adequately through school- or institution-based surveys.

NHES:96 was conducted from January to April of 1996 and included interviews with parents and guardians of 20,702 children 3 years old through 12th grade. This report focuses on the involvement of parents of 16,145 1st- through 12th-graders.[6] Included in this sample are 5,064 children in 1st- through 12th-grade who have a nonresident father and 1,369 who have a nonresident mother. The results on the involvement of parents in their children's schools are generalizable to all U.S. children in 1st through 12th-grade in 1996. The Methodology and Data Reliability section of this report provides information on the survey and methodology, response rates and data reliability. Additional information on these and

[6] Children not yet in 1st grade were excluded because most of the student outcome information was not asked of young children (for example, grades usually received). Children not yet in school, and those who were home-schooled, were also excluded because their parents were not asked questions about "in school" involvement.

related topics can be found in the *Data File User's Manual, Volume I* (U.S. Department of Education 1997) and in the Working Paper, *Unit and Item Response Rates and Implementation Procedures in the 1996 National Household Education Survey* (U.S. Department of Education 1997).

The unit of analysis in the NHES:96 is the child and not the parent. Thus, when parent-reported data are presented in this report, they are referenced to the children. Strictly speaking, "the percent of parents who are involved in their children's schools" is "the percent of children whose parents are involved in their schools." Though not technically equivalent, both phrases are used in this report.

Measuring Parental Involvement

The NHES:96 asked about four types of school activities that parents could participate in during the school year. The activities are fairly typical of those at most schools: attendance at a general school meeting,[7] attendance at a regularly scheduled parent-teacher conference, attendance at a school or class event, and serving as a volunteer at school. These activities may be important not only in and of themselves, but also because parents who are involved at school are involved in other ways, as well, that benefit students. This report uses information on school involvement in three different ways. First, it looks at the individual activities that parents participate in. Second, it uses a scale that is formed by counting the number of activities that parents participate in. This scale ranges from zero (participates in no activities) to four (participates in all four activities). Third, in some tables, a collapsed version of this scale or indicator of involvement is also used. For the indicator, resident parents are said to have low involvement in their children's schools if they have done none or only one of the four activities. They are categorized as having moderate involvement if they have done two of the activities. Those who said that they have done three or more of the activities are said to be highly involved in their children's schools. A slightly different categorization is used for nonresident parents. If they have had contact with the students in the past year but have not been involved in school, they are said to have no involvement. If they participated in one activity, they are said to have low involvement. If they participated in two or more

[7] In the NHES:96, two question formats were used to ask respondents about attendance at a school meeting. Half of the sample was asked a single question, whereas the other half was asked two questions about different types of school meetings. The single question asked about attendance at a general school meeting, for example, an open house, a back-to-school night, or a meeting of a parent-teacher organization. The two questions asked about attendance at an open house or back-to-school night and attendance at a meeting of a PTA, PTO, or parent-teacher-student organization. To create a single variable about attendance at a school meeting, the two items asked in the second set were combined. Multiple regression analyses were used to examine whether the question format used to ask parents about attendance at school meetings explained any of the variance in attendance after taking into account other potentially mediating factors such as family income, race/ethnicity, family structure, maternal education, and maternal employment. The findings of these analyses indicated that the question format that was used did not account for differences in attendance at school meetings. Consequently, the data obtained from the two question formats were combined for the analyses performed in this report.

activities, they are said to have moderate-to-high involvement. The moderate and high involvement categories for nonresident parents were combined for some analyses, because generally a small percentage of nonresident parents are highly involved in the students' schools.

Not all schools offer parents the opportunity to be involved in each of these activities. Particularly as children grow older, schools offer parents fewer opportunities for involvement. Low involvement can result because parents do not or cannot take advantage of available opportunities for involvement or because schools do not offer them opportunities for involvement. When estimates are restricted to those with the opportunity to be involved, the proportion of involved parents is somewhat higher. A previous NCES report found that the pattern of association between involvement and other variables (such as parent education) does not materially change when opportunity for involvement is taken into account (Nord, Brimhall, and West 1997). For this report, we do not incorporate information on opportunity for involvement for two reasons. First, such information is only available for two of the four activities. Using it would give disproportionate weight to these two activities. Second, because most studies do not include this information, making an adjustment would decrease the comparability between this study and existing studies.

The NHES:96 is unusual in that it not only asked about parental involvement in their children's schools, but it also asked which parent participated in the activities or whether both parents participated. Moreover, resident parents were asked a parallel set of questions about the involvement of the nonresident parent (if there was one). Thus, it is possible with the NHES:96 to describe separately the school involvement of resident mothers and fathers and of nonresident mothers and fathers.

Student Outcomes

Three student outcomes are used in this report. The first is a measure of academic success—whether the student gets mostly A's.[8] The second is a measure of academic difficulties—whether the student has ever repeated a grade. The last outcome only applies to students in the 6th through 12th grades and is indicative of conduct problems—whether the student has ever been suspended or expelled. Students who have ever been suspended or expelled are more likely than other students to experience school failure and to drop out of school. All three of these outcomes are factual in nature. That is, they do not require respondents to form judgments about the emotional or psychological state of their children's

[8] According to parents' reports, 38 percent of students in grades 1 through 12 get mostly A's. If school records were used to obtain this information instead, the proportion might be lower.

well-being. Because they are factual, parents should be knowledgeable about them. A previous NCES report used these outcomes and found that they were consistently related to parent involvement in school (Nord, Brimhall, and West 1997). Moreover, they tap domains that other studies have also found to be linked to both parent involvement and differences in family structure.

Strengths and Limitations of the Present Study

One limitation of the NHES:96 for examing the influence of parental involvement on student outcomes is that the NHES:96 is a cross-sectional data set. It cannot establish causal connections between parental involvement and student outcomes. It can only suggest such links. Longitudinal data are needed in order to make firm causal statements about the effects of parental involvement in students' school success.

Another potential limitation is that for 75 percent of the cases of the full NHES:96 file, the mother was the respondent. An important issue is whether mothers accurately report the involvement of fathers in their children's schools. It is generally believed that mothers are better reporters than fathers about factual matters regarding children, such as when they last saw a doctor. Given that the items in the NHES:96 that measure involvement in school are essentially factual (attended a meeting or not), mothers' reports are probably quite good. Whether resident mothers are good reporters about the actions of nonresident fathers is less certain. Research indicates that there are discrepancies between the reports of resident and nonresident parents on the amount of child support monies that have been paid by the nonresident parents and on the extent of contact between nonresident parents and their children (Braver et al. 1991; Schaeffer, Seltzer, and Klawitter 1991).

There are some weaknesses of the NHES for studying the involvement of nonresident parents. In particular, there are several important factors that are not measured in the NHES, including the residential proximity of the nonresident parent to the children and the length of time that the parents have been separated. Nonresident fathers' contact with their children decreases as residential distance and length of time since separation increase (Nord and Zill 1996; Furstenberg et al. 1983). It is likely that involvement in school also decreases as distance and time since separation increase. These factors are also associated with the marital status of the resident parent and the age of the child. That is, parents who have recently separated are more likely to be single than parents who separated several years earlier, and their children are generally younger. We know from an earlier study that nonresident fathers are more likely to be involved in their children's schools if the resident mother has not remarried and if the children are

younger (Nord, Brimhall, and West 1997). We cannot determine from the NHES:96 data, however, the extent to which these associations are due to time since separation and how far away the nonresident fathers live.

Two major strengths of the NHES:96 are: (1) it collects information about the school involvement of both resident and nonresident mothers and fathers, and (2) it contains a large, nationally representative sample of students in grades 1 through 12. Thus, it is one of the only large data sets that can begin to examine why students in nontraditional families tend to fare less well in school. Given that such students are likely to continue to represent a substantial proportion of the school-aged population, it is important to learn whether there are steps that schools and parents can take to help them.

Organization of Report

In the remainder of the report, the findings of the NHES:96 concerning the involvement of both resident and nonresident mothers and fathers in their children's schools is presented. To place the results from the NHES:96 in the context of existing studies, the first section of findings begins by showing how overall parental involvement varies across traditional and nontraditional families. It then looks at resident mothers' and fathers' involvement and the association between their involvement and whether students get mostly A's, have ever repeated a grade, or have ever been suspended or expelled. Both the level of involvement and the type of activity that mothers and fathers participate in are shown for students living in traditional and in nontraditional families. The involvement of stepmothers, stepfathers, and mothers in stepfather families, fathers in stepmother families, and mothers and fathers heading single-parent families is compared to that of mothers and fathers in two-biological-parent families. The association between their involvement and the three student outcomes is also presented and compared to that of mothers and fathers in two-biological-parent families.

The second major section of the findings describes nonresident mothers' and fathers' involvement in their children's schools and the association between their involvement and the student outcomes. This section also examines whether it is nonresident mothers' and fathers' frequency of contact or active involvement in school that is more strongly associated with students' school performance.

Findings

School Involvement of Resident Parents

Involvement by family type

Most existing studies do not collect information on school involvement separately for mothers and fathers. In such studies, the involvement of parents in two-parent families is the involvement of the more involved parent. That is, families in which one of the two parents is highly involved would be said to be highly involved. When overall parental involvement is examined in this way, results based on the NHES:96 data are consistent with existing studies. Students living in nontraditional families are significantly[9] less likely than students living in traditional families to have parents with high levels of involvement in their schools—that is, to have parents who participated in at least three of the four activities (figure 1).[10] About half of students living in stepfamilies or in single-parent families have parents who are highly involved, while 62 percent of students living with both their parents have parents who are highly involved in their schools. There are no significant differences between students living in stepfamilies and those living in single-parent families in the percentage who have highly involved parents. Forty-eight percent of students in stepfather families and in mother-only families have highly involved parents, as do 50 percent of students in stepmother families and 46 percent of students in father-only families. Students living with neither parent are the least likely to have parents or guardians who are highly involved in their schools.[11] Thirty-seven percent have nonparent guardians who are highly involved.

When it comes to low parental involvement, about one-quarter of students living in stepmother and stepfather families have parents with low levels of involvement in their schools, as do 27 percent of students in mother-only families and 29 percent of students in father-only families. Students living with neither parent are the most likely to have parent figures with low levels of involvement in their

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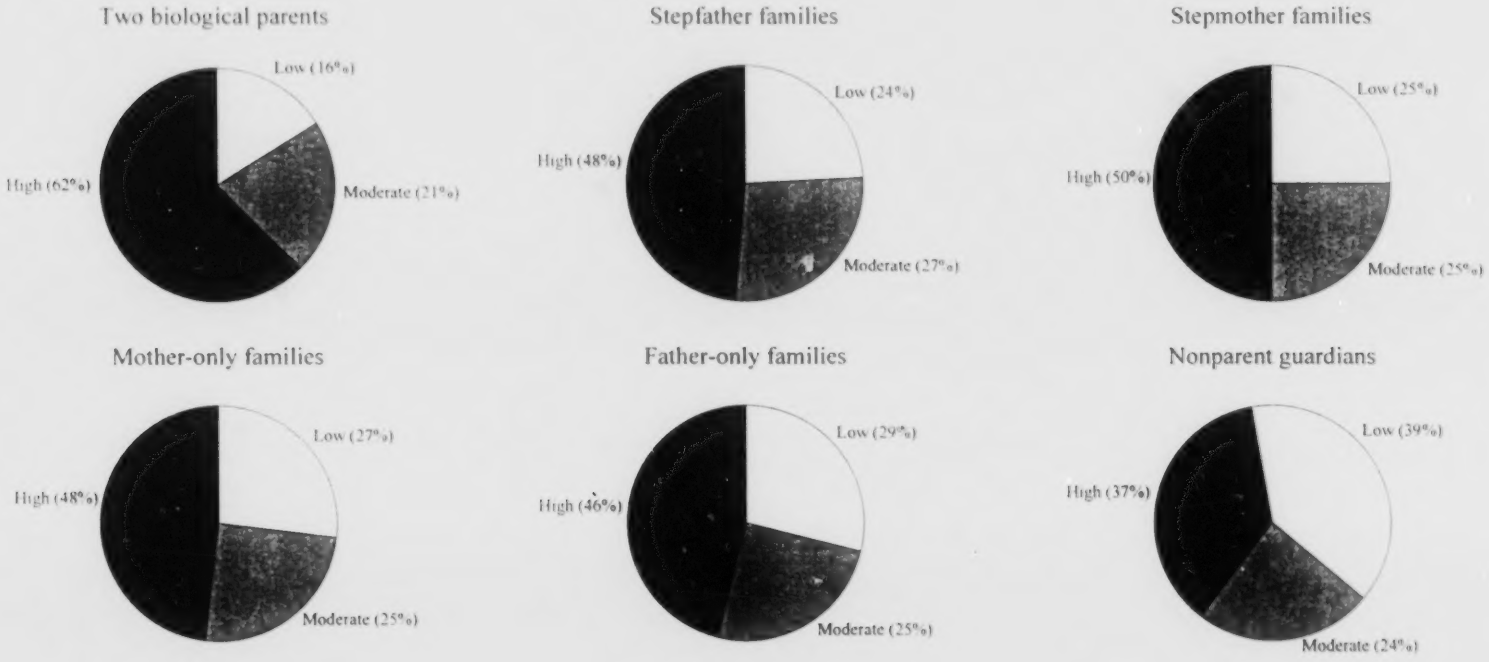
[9] The words significant and significantly when used in this report always indicate *statistical* significance (at the 0.05 level, unless otherwise noted).

[10] Appendix A contains tables that show the estimates and standard errors for each of the figures in the Findings section.

[11] The differences are significant for students living in stepfather, stepmother, and in mother-only families versus those living with neither parent. The difference approaches, but does not attain significance for students living in father-only families versus students living with neither parent.

Figure 1.—Percentage distribution of students, by parental involvement in school and family type: Students in grades 1-12, 1996



NOTE: Low involvement is participation in no or only one activity; moderate involvement is participation in two activities; high involvement is participation in three or more activities. Because of rounding, percents may not add to 100.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

schools. Thirty-nine percent of such students have guardians who participated in none or one activity during the current school year. In contrast, 16 percent of students living with both their parents have parents with low levels of involvement in their schools .

The overall higher involvement of parents in two-biological-parent families is also apparent when looking at each of the four school activities that are the basis for the indicator (figure 2). In general, for any given activity, students living with both their parents are more likely than students living in nontraditional families to have a parent who participated in that activity. There are some exceptions; for example, there is no significant difference between students living with both their parents and those living in stepparent families in the likelihood that at least one parent attended a parent-teacher conference. But the exceptions are very few. Students living with both their parents are particularly advantaged relative to other students in one activity in particular: they are significantly more likely than other students to have a parent who has volunteered at their school during the current school year. Forty-six percent of students living with both parents have a parent who volunteered compared to about a quarter of students living in stepparent and single-parent families and about a fifth of students living with nonparent guardians.

Level of Mothers' and Fathers' School Involvement by Type of Parent

As noted earlier, a strength of the NHES:96 data is that information on parental involvement in school is available separately for mothers and fathers. These data provide a clearer picture of the association between both parent type (biological or step) and family type and parental involvement. Even though stepfamilies are no different from single-parent families in terms of overall parental involvement, differences emerge when levels of involvement are examined separately for stepmothers, stepfathers, and biological mothers and fathers in different family types.[12] Figure 3 shows the percentage of students living in different family types by the level of their mothers' and fathers' involvement in their schools. The percentages reveal that stepmothers are significantly more likely than biological mothers, regardless of family type, to have low levels of involvement in their children's schools. Forty percent of students in stepmother families have a stepmother with low involvement in their schools. In contrast, 27 percent of students in mother-only families, 28 percent in stepfather families, and 20 percent living with both their parents have mothers with low involvement in their schools.

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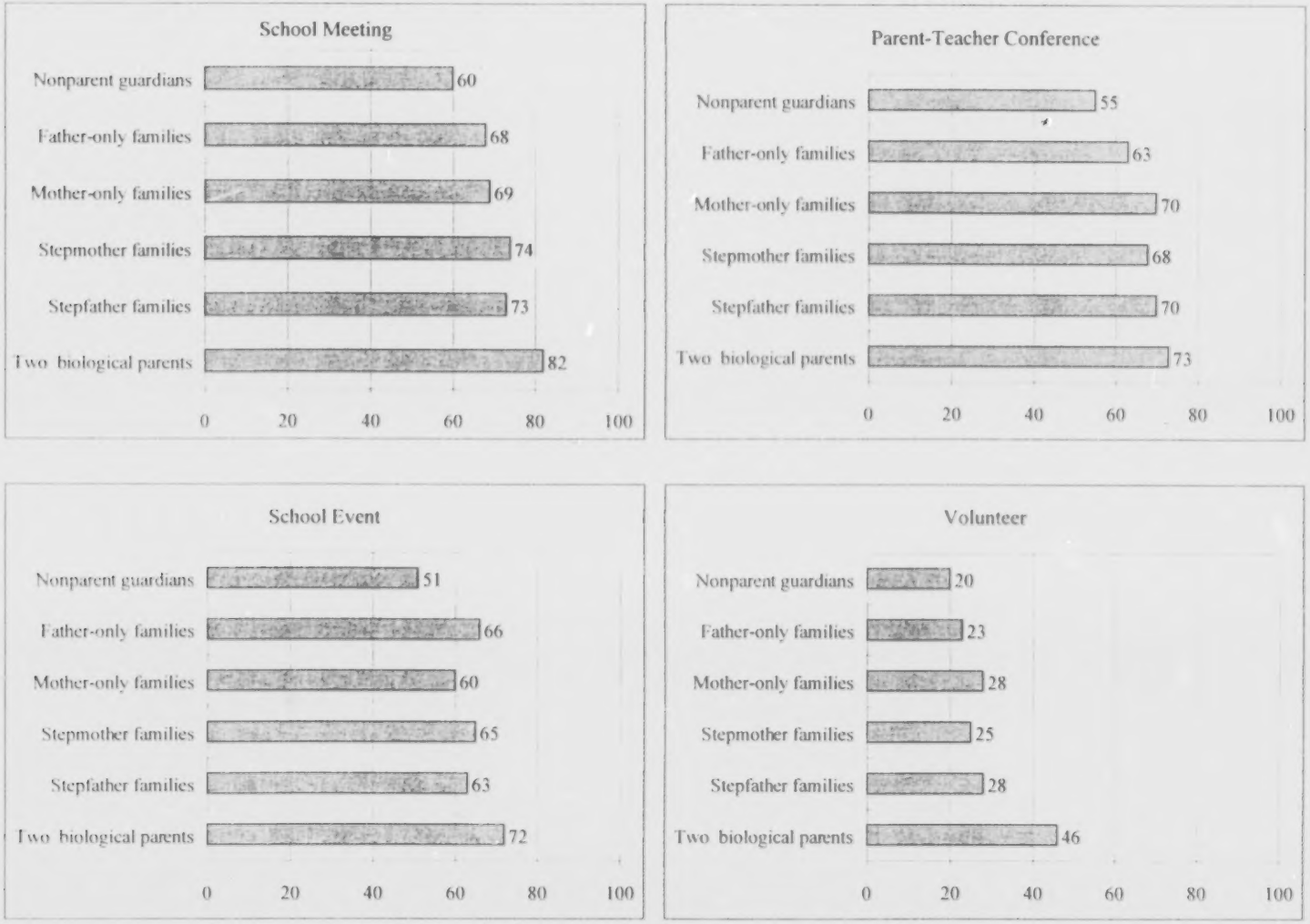
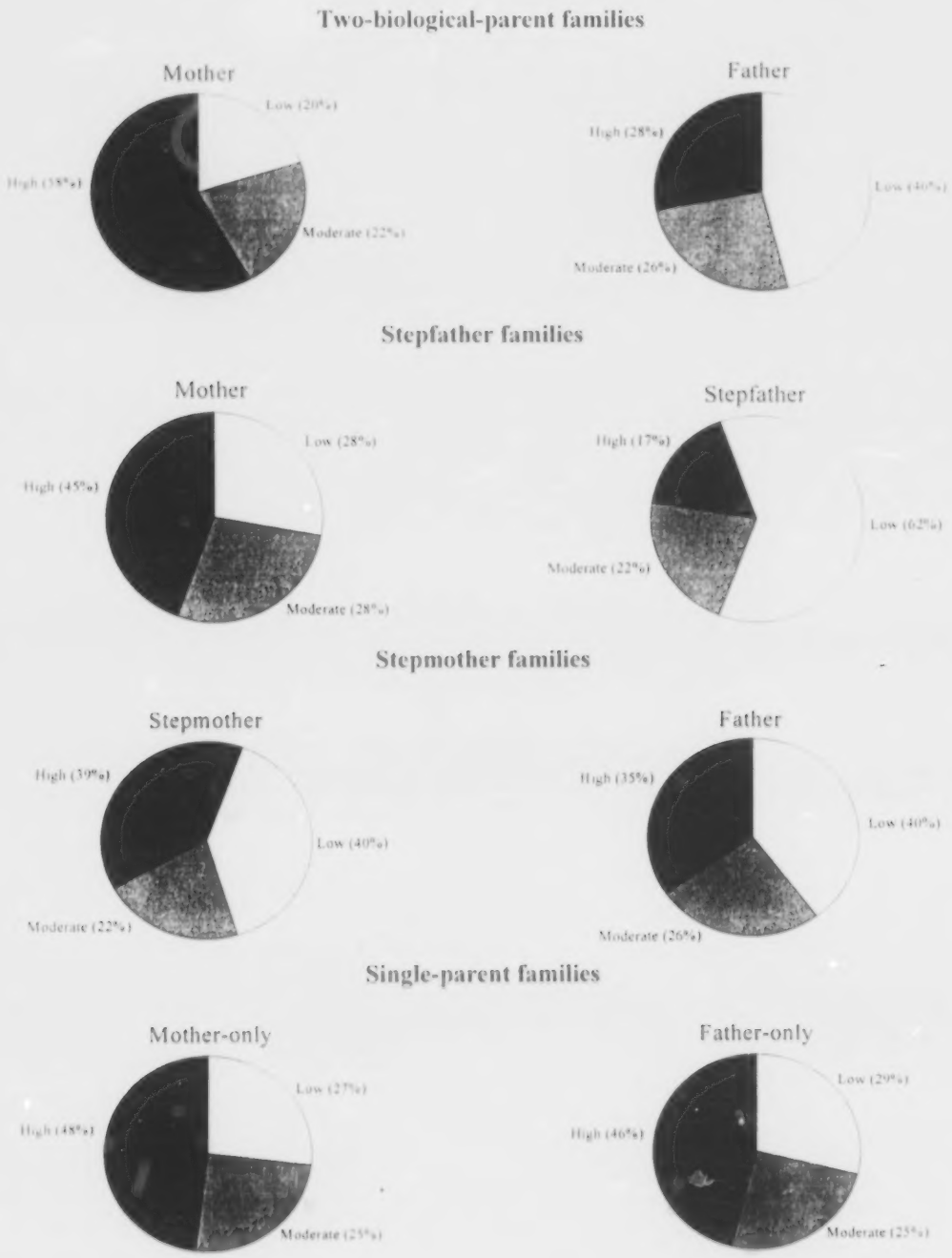
[12] For students living with neither parent, information was not collected separately for the female or male guardian. The information presented in figures 1 and 2 is the extent of school involvement information available for nonparent guardians.

Figure 2.—Percentage of students, by type of parental involvement in school and family type: Students in grades 1-12, 1996



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

Figure 3.—Percentage distribution of students, by mothers' and fathers' involvement in school and family type: Students in grades 1-12, 1996



NOTE: Low involvement is participation in no or only one activity; moderate involvement is participation in two activities; high involvement is participation in three or more activities. Because of rounding, percents may not add to 100.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

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With respect to high involvement in schools, students in stepmother families are significantly less likely than students living with both their parents and students living in mother-only families to have mothers who are highly involved in their schools. Though stepmothers appear less likely than biological mothers in stepfather families to be highly involved (39 percent of students in stepmother families versus 45 percent in stepfather families have highly involved mothers), the difference is not statistically significant.

Just as stepmothers are more likely than biological mothers, regardless of family type, to have low involvement in their children's schools, stepfathers are also less involved than biological fathers, regardless of family type (figure 3). Sixty-two percent of students in stepfather families have a stepfather with low levels of involvement in their schools. Fathers in two-biological-parent families and those in stepmother families are about equally likely to show low levels of involvement. Forty-six percent of students in two-biological-parent families have fathers with low levels of involvement, as do 40 percent of students in stepmother families. Students in father-only families are the least likely to have fathers with low levels of involvement. Twenty-nine percent of students in father-only families have fathers who participated in none or one school activity.

With respect to high involvement, students living with stepfathers are the least likely of the students to have a father who is highly involved in their schools. Seventeen percent of students living with a stepfather have a stepfather who is highly involved in their schools. In contrast, 28 percent living with both their parents, 35 percent living in a stepmother family, and 46 percent living in a father-only family have fathers who are highly involved in their schools. Fathers in stepmother families fall in between those in two-biological-parent families and those heading father-only families in being highly involved. They are more likely than fathers in two-biological-parent families but are less likely than single-parent fathers to be highly involved in their children's schools.

It is also worthwhile comparing the involvement of mothers and fathers (figure 3). Consistent with prior findings (Nord, Brimhall, and West 1997), the data show that mothers and fathers heading single-parent families have levels of involvement that are very similar. This result is in accord with other studies that have found that fathers who head single-parent families assume many of the mother's roles (Thomson, McLanahan, and Curtin 1992). By the same token, several studies have observed that fathers in two-parent families tend to be less involved than mothers in their children's lives (Nord, Brimhall, and West 1997; Thomson, McLanahan, and Curtin 1992). There is, however, one type of two-parent family that shows similar levels of involvement between resident (whether biological or

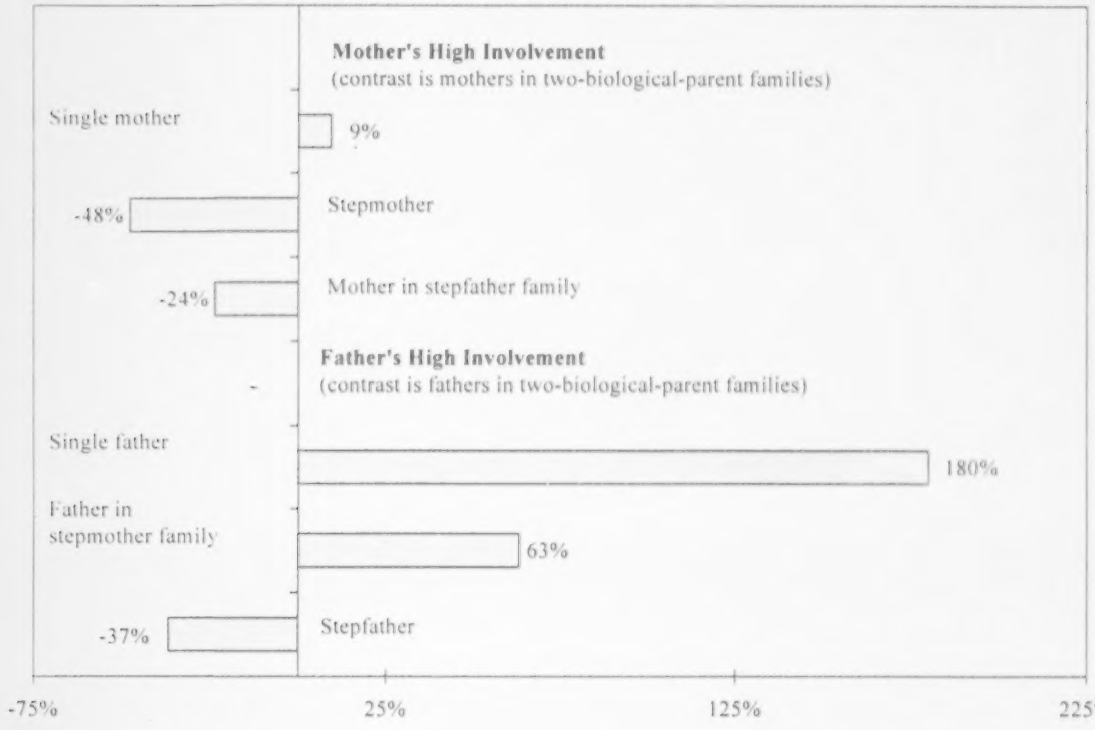
not) mothers and fathers—stepmother families. Fathers in stepmother families have levels of involvement that are nearly identical to that of the stepmothers. This result is consistent with the study by Thomson and her colleagues that found fathers in stepmother families and stepmothers show similar levels of involvement with their children at home (Thomson, McLanahan, and Curtin 1992). In stepmother families, fathers have higher involvement relative to fathers in two-biological-parent families, while stepmothers, as shown above, have lower involvement than biological mothers do.

It is interesting to observe that mothers in stepfather families tend to have significantly lower involvement than mothers in two-biological-parent families, while fathers in stepmother families, as just noted, tend to have higher involvement relative to fathers in two-biological-parent families. One possible explanation is that in both types of stepfamilies, the biological parents are considering the needs of their spouses. Mothers in two-biological-parent families tend to be highly involved in their children's schools. However, if a mother remarries she might not expect her spouse, who is unrelated to her children, to give up time with her so that she can devote it to her children. So she balances the needs of her children and her spouse by reducing her time devoted to child-related tasks, such as school involvement. Similarly, fathers in two-biological-parent families tend to have low involvement in their children's schools. That task appears to be left mainly to their wives. However, if a father remarries, he may not expect his new wife to devote as much of her time to children unrelated to her. So fathers may balance the needs of their new wives and their children by increasing their involvement in child-related tasks, such as school involvement.

The percentages in figure 3 are unadjusted. They do not take into account such factors as parents' education, household income, race/ethnicity, and ages of the students, but these characteristics vary across family types (Zill 1996; Thomson 1994). Moreover, they are associated with the level of parental involvement in school (Zill 1996). Thus, it is important to statistically control for them so that the association between parent and family type and parental involvement can be better assessed. Figure 4 shows the percent change in the adjusted odds[13] of high maternal and paternal involvement taking into

[13] The logistic regression models that are the basis for the results reported in figure 4 are contained in appendix B. The logistic regression results in appendix B are presented as adjusted odds ratios. In figure 4 and in the discussion, the results are expressed as percent changes in the odds. The percent change is calculated as (odds ratio-1)*100, with a negative result indicating a percent decrease and a positive result indicating a percent increase in the odds relative to a specific comparison or contrast group. See pages 65-66 of the Methodology and Data Reliability section for details on adjusted odds ratios and how to interpret them. Throughout the report, when logistic regression results are presented, they will be expressed as the percent change in the odds. The full models with the adjusted odds ratios are contained in appendix B.

Figure 4.—Percent change in adjusted odds of high parental involvement— students in single and stepparent families versus students in two-biological-parent families: Students in grades 1-12, 1996



NOTE: Adjusted for students' age, sex, race/ethnicity, family income, parent education, and maternal employment (mother's high involvement only). High involvement is participation in three or four activities. See appendix B, table B1, for adjusted odds ratios for the full models. Percent change in odds is calculated as (odds ratio-1)*100. See Methodology and Data Reliability section for more details.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

account the above characteristics and family type. After adjusting for student and family background characteristics, there is no longer any significant difference in the odds that students living with two biological parents and students living in mother-only families have a mother who is highly involved in their schools. Students living with stepmothers or stepfathers, however, are significantly less likely than those living with two biological parents and those living in mother-only families to have a mother who is highly involved in their schools. There continues to be no significant difference between students in stepmother and those in stepfather families in the likelihood of having a highly involved mother.

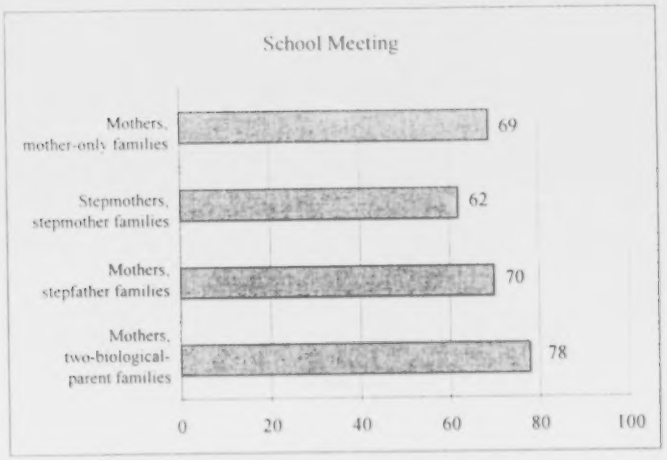
The adjustments do not substantially alter the pattern of results described above for father involvement by family type. After adjusting for fathers' education, family income, students' age, sex, and race/ethnicity, students living with two biological parents are significantly less likely than students living in stepmother families to have a father who is highly involved in their schools. In other words, students living with a biological father and a stepmother are more likely to have a highly involved father than students living with two biological parents. Again, students living in father-only families are significantly more likely than students living in other family types to have a highly involved father.

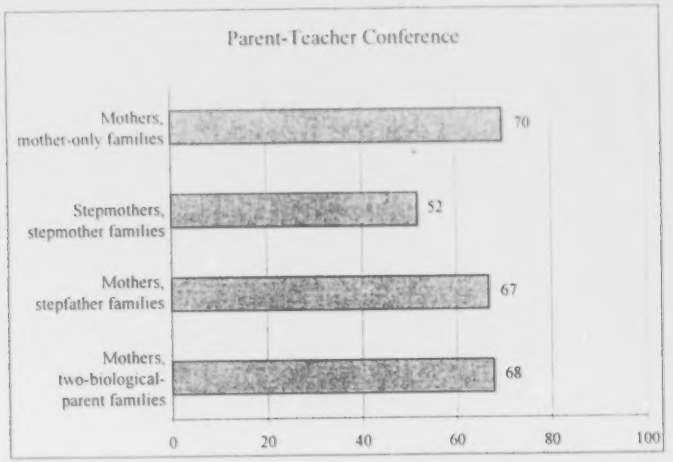
As discussed in the introduction of this report, it has been suggested that parents in single-parent families will have less involvement than parents in two-parent families because of the structural constraint of being single parents (e.g., Downey 1994, Scott-Jones 1984). However, the lower involvement of stepmothers relative to single mothers weighs against this argument. In addition, there are two stronger pieces of evidence against this hypothesis. The first one is that the school involvement of mothers in mother-stepfather families is not significantly different from that of mothers in mother-only families (figure 3) when no adjustments are made and is significantly less than that of single mothers after taking into account student and family background characteristics (figure 4). Whereas some of the perspectives outlined earlier suggest that stepparents will have lower involvement than biological parents, including single parents, most would not predict that a biological mother in a stepfather family would have lower involvement than a single mother. The second piece of evidence is that the school involvement of single mothers is no different from that of mothers in traditional families, after taking into account student and family characteristics. The family structure perspective is also not supported by the fact that single fathers are significantly more likely than fathers in two-biological-parent families and fathers in stepfamilies to be highly involved in their children's schools. Thus, other explanations are needed to account for the involvement patterns reported above.

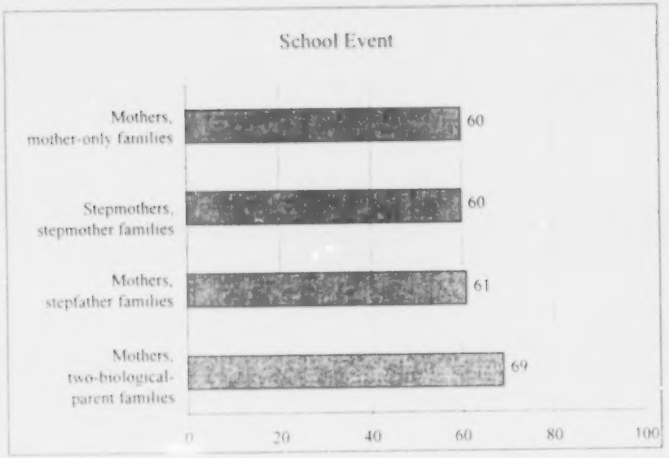
Type of School Activities Mothers and Fathers Attend by Family Type

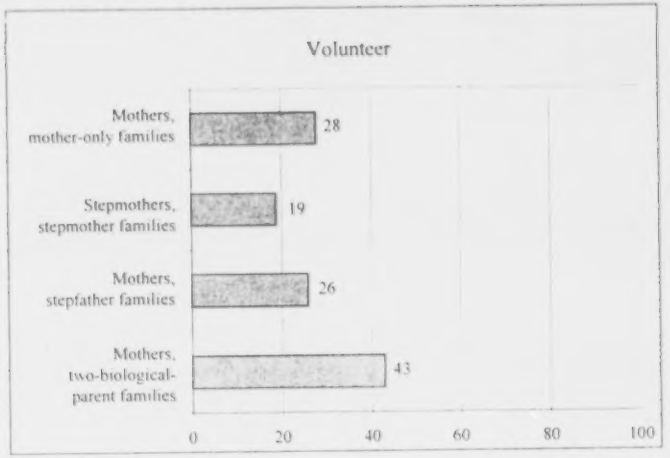
There are two activities, in particular, that stepparents are significantly less likely than biological parents to participate in: attending a regularly scheduled parent-teacher conference and volunteering in their stepchildren's schools (figures 5 and 6). Fifty-two percent of students in stepmother families had a stepmother who attended a regularly scheduled parent-teacher conference (figure 5). In contrast, 67 percent of students in stepfather families, 68 percent living with both their parents, and 70 percent of students in mother-only families had a mother who attended a regularly scheduled parent-

Figure 5.—Percentage of students, by type of mothers' involvement in school and family type: Students in grades 1-12, 1996



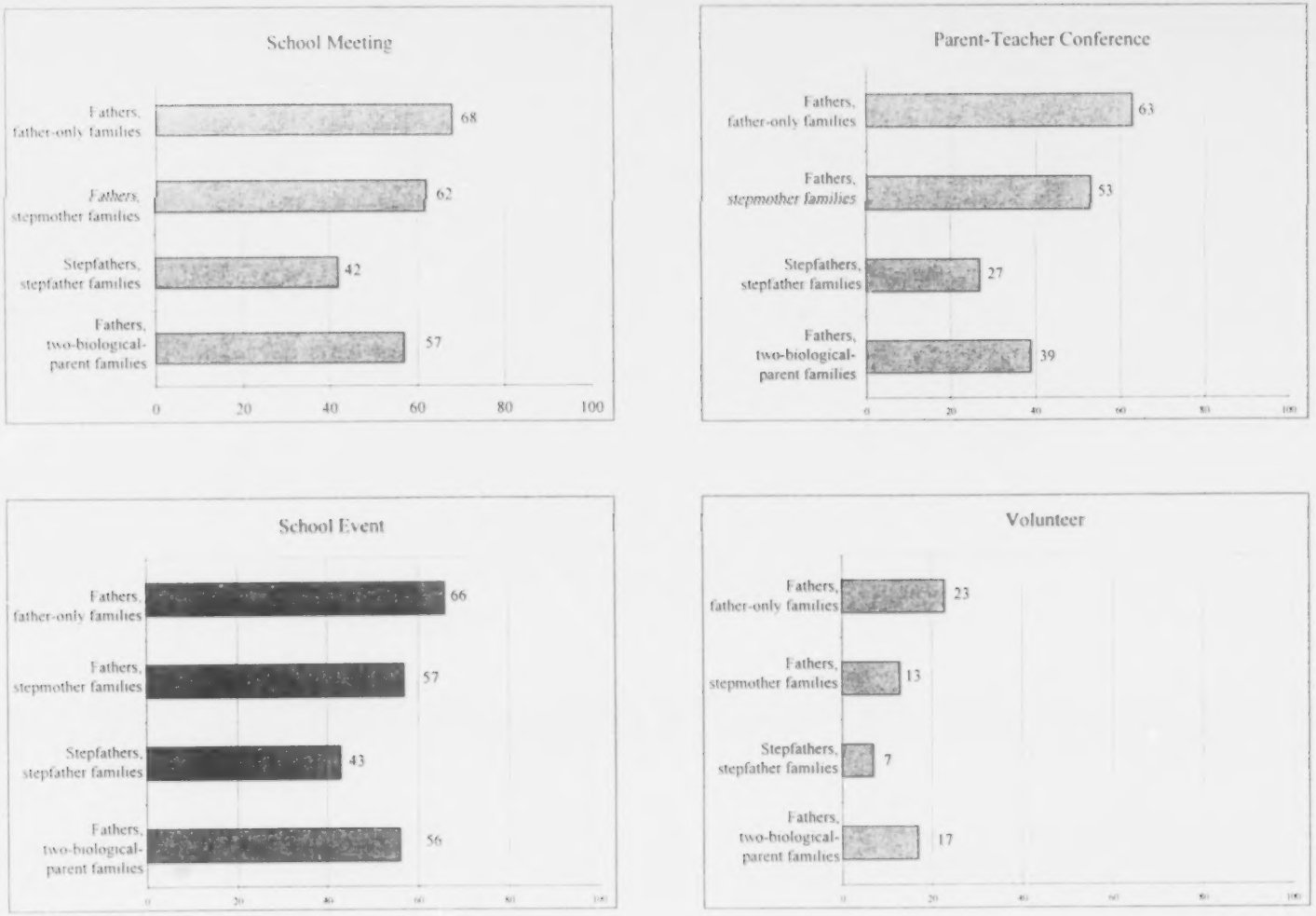






SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

Figure 6.—Percentage of students, by type of fathers' involvement in school and family type: Students in grades 1-12, 1996



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

teacher conference. Biological mothers, regardless of family type, thus are essentially the same when it comes to attending a regularly scheduled parent-teacher conference. Stepfathers, like stepmothers, are particularly unlikely to attend a regularly scheduled parent-teacher conference (figure 6). Twenty-seven percent of students living in stepfather families had their stepfather attend a regularly scheduled parent-teacher conference. In contrast, 39 percent of students living with two biological parents, 53 percent living in stepmother families, and 63 percent living in father-only families had a father who attended a regularly scheduled parent-teacher conference. As with overall involvement, fathers in stepmother families are intermediate in attendance at parent-teacher conferences, between fathers in two-biological-parent families and fathers heading single-parent families.

Attending a parent-teacher conference, more so than the other activities, may be tied to parents' sense of their parental role and themselves as parents. In such meetings, they hear about how their children are doing in school, they express concerns about their children's performance, and get to know their children's teachers better. In essence, the strengths and weaknesses of their children are laid open—a very personal matter meant for those who view themselves as parent figures. That stepmothers and stepfathers are less likely than biological parents to participate in this activity supports the view that many stepmothers and stepfathers either do not view themselves or are not viewed by others in their family as true mothers and fathers of their stepchildren. Fifty-two percent of stepmothers are attending these meetings and are functioning as mothers to their stepchildren in this respect. In fact, they are as likely as fathers in stepmother families to attend parent-teacher conferences.

As noted above, stepparents are also significantly less likely than biological parents to volunteer at their stepchildren's schools. Forty-three percent of students living with two biological parents have a mother who volunteers in their schools, as do 26 percent of students in mother-stepfather families and 28 percent of students in mother-only families. In contrast, 19 percent of students in stepmother families have a stepmother who volunteers at their school. Similarly, 7 percent of students living in stepfather families have a stepfather who volunteers at their school compared to 17 percent living with two biological parents, 13 percent living in stepmother families, and 23 percent living in father-only families. Volunteering at school requires a commitment of time. If stepmothers and stepfathers tend not to feel like true parent figures to their stepchildren, it seems reasonable that they would be less willing than biological mothers and fathers to sacrifice their time to this type of activity. Thus, this result is also consistent with the notion that stepmothers and stepfathers are not fully assuming (or are not being allowed to assume) the mother and father roles with respect to their stepchildren. However, a substantial quantity of stepmothers are involved in their stepchildren's schools—they just aren't as involved as

biological mothers. Stepfathers, too, are involved, they are just less likely to be involved than biological fathers. Shortly, we will examine the association between mothers' and fathers' involvement and student outcomes.

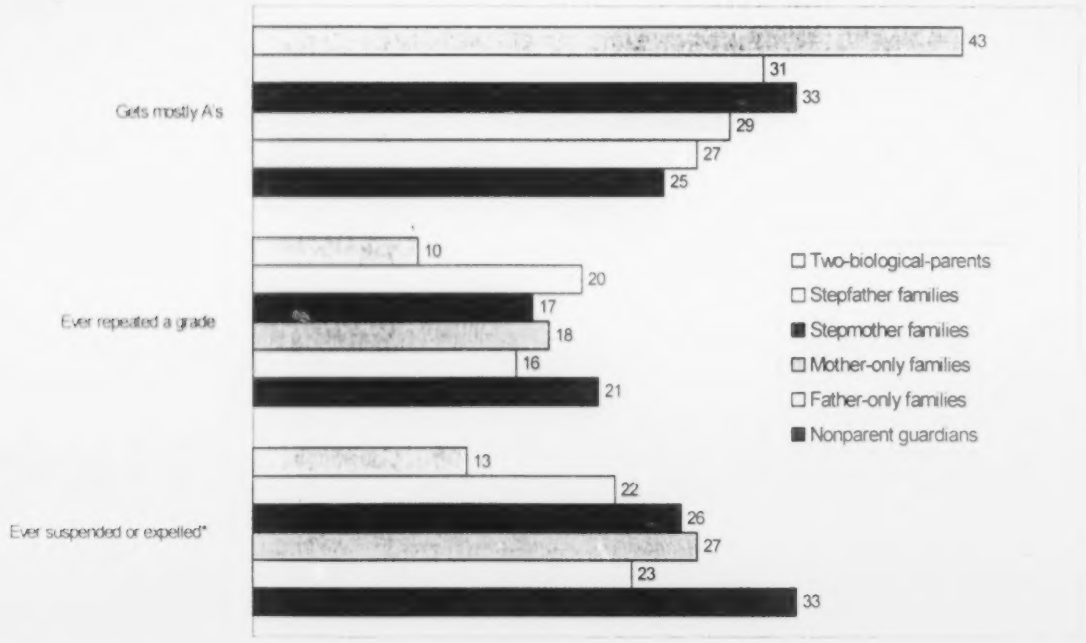
Student Outcomes and Family Type

As others have found (Zill 1996, Lee 1993), how students do in school is related to the type of family in which they live. Across all three outcomes assessed in the NHES:96, students living with both their biological parents tend to fare better than students living in other family types. Such students are substantially more likely than students living in other family types to do well academically in school (figure 7). Forty-three percent of students living with both their parents get mostly A's compared to 31 percent of students in stepfather families, 33 percent in stepmother families, 29 percent in mother-only families, 27 percent in father-only families, and 25 percent living with neither parent. There are no statistically significant differences in the percentage of students getting mostly A's among students living in the different types of nontraditional families.

Similarly, students living with both their parents are substantially less likely than students living in other family types to experience problems successfully progressing through each grade (figure 7). Ten percent of students living with both their parents have ever repeated a grade compared to 20 percent living in stepfather families, 17 percent in stepmother families, 18 percent in mother-only families, 16 percent in father-only families, and 21 percent living with neither parent. As before, there are no statistically significant differences among students living in nontraditional families.

Not only do students living with both their parents tend to do better in school than students living in other family types, they are less likely to have behavior problems at school that result in their being suspended or expelled. Thirteen percent of 6th- through 12th-graders living with both their parents have ever been suspended or expelled (figure 7). In contrast, 22 percent of 6th- through 12th-graders living in stepfather families, 26 percent living in stepmother families, 27 percent living in mother-only families, 23 percent living in father-only families, and 33 percent living with neither parent have ever been suspended or expelled. There are no statistically significant differences among students living in nontraditional families, except that students living in stepfather families are less likely than students living with neither parent to have ever been suspended or expelled.

Figure 7.—Percentage of students with selected student outcomes, by family type: Students in grades 1-12, 1996

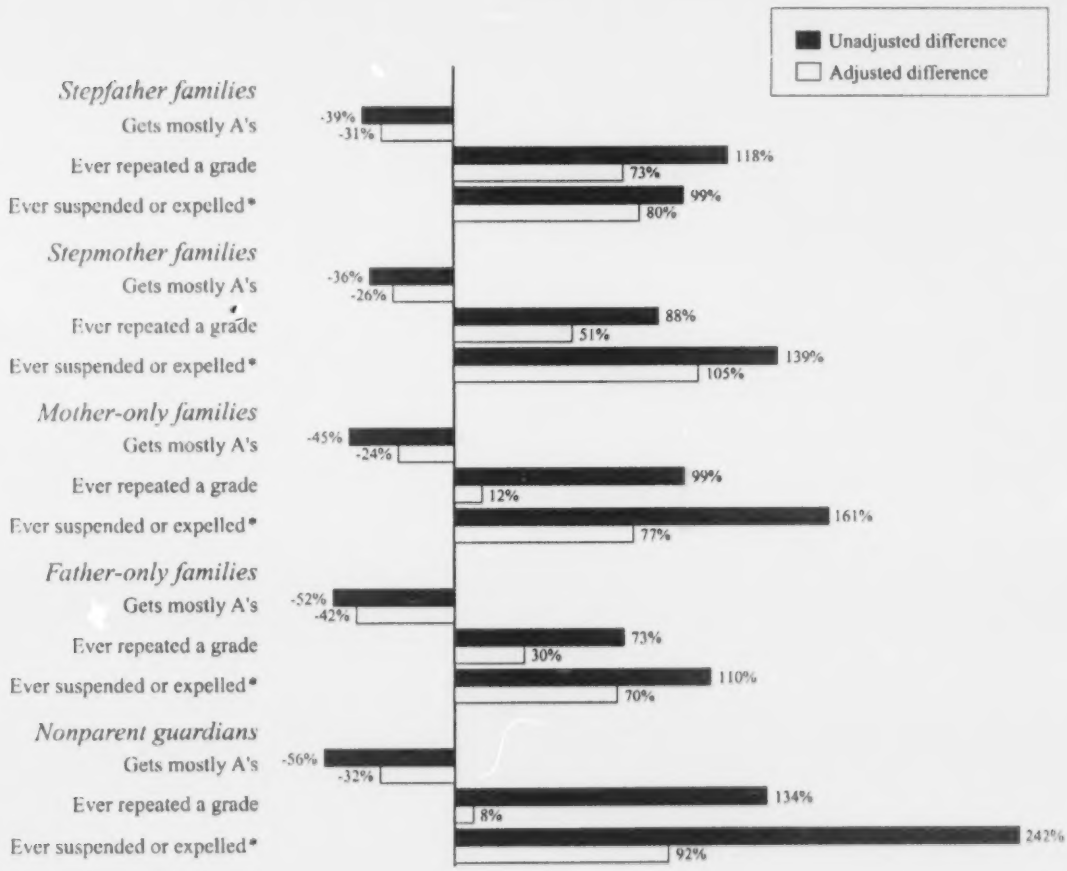


* Applies only to students in grades 6 through 12

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

Figure 8 shows the percent change in the odds of each student outcome for students living in nontraditional families compared to those living in traditional families when no adjustments are made and after adjusting for the students' age, sex, race/ethnicity, family income, and parent education. For example, the odds that students in stepfather families have ever repeated a grade goes from 118 percent higher to 73 percent higher than student's living with two biological parents after taking into account family background factors. The greatest reductions are seen for students living in mother-only families and with nonparent guardians, which indicates that one reason students living in these families tend to do less well may be because of the economic and educational disadvantage of their families. However, students in nontraditional families remain significantly less likely than students living in two-biological-parent families to get mostly A's and are significantly more likely than students living with two biological parents to have ever been suspended or expelled. For grade repetition, students living in stepfamilies are significantly more likely than students living with both their parents to have ever repeated a grade once the students' age, sex, race/ethnicity, family income, and parent education are taken into account.

Figure 8.—Percentage change in unadjusted and adjusted odds of selected student outcomes—students in nontraditional families versus students in traditional families: Students in grades 1-12, 1996



* Applies only to students in grades 6 through 12.

NOTE: Adjusted for students' age, sex, race/ethnicity, family income, and parent education. See appendix B, table B2, for the models on which this figure is based. Percent change in odds is calculated as (odds ratio-1)*100. See the Methodology and Data Reliability section for more details.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

Student Outcomes and Resident Mothers' and Fathers' School Involvement

We now turn to the question of whether residential parents' involvement in the students' schools help to account for the poorer student outcomes among students in nontraditional and in traditional families. We also examine whether the involvement of stepmothers and stepfathers is associated with student outcomes and whether the association between biological parents' school involvement and student outcomes is the same across the different types of families. Table 2 presents the results of logistic regression models relating mothers' and fathers' school involvement to the three student outcomes: get mostly A's, ever repeated a grade, and ever suspended or expelled. The results are presented as adjusted odds ratios. Each odds ratio may be interpreted as the effect of the involvement variable of interest on the likelihood of experiencing each outcome, while taking into account the other student and family characteristics included in the model.[14] Separate logistic regression models were estimated for each of the five family types with at least one biological parent. Because only a small proportion of students live in stepmother families (see table 1), the standard errors for the estimates in these models are larger than in the other models. The larger standard errors makes it more difficult to identify statistically significant differences. Estimating models within family type is equivalent to estimating models in which family type interacts with all the other factors in the models. Such models are less powerful than models that pool information across family types and constrain some factors to have the same effect across family types. In addition to estimating models within each family type, we also estimated models for all two-parent families. For these models, we included interaction[15] terms between mothers' and fathers' school involvement and family type but assumed that the other factors in the models (e.g., income, parent education, and student characteristics) had consistent effects on student outcomes for all two-parent families. These models have more power than the within-family type models. They also allow us to directly test differences in the relationship between mothers' and fathers' school involvement on student outcomes across the two-parent family types. Below, we discuss both the within- and across-family type models.

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[14] See pages 65-66 of the Methodology and Data Reliability section for details on adjusted odds ratios and how to interpret them.

[15] Use of interaction terms allow the estimates of the influence of one variable on an outcome to vary by the level of another variable. In the logistic models presented later in table 3, the interaction terms allow the influence of moderate and high involvement to be different for stepparent and two-biological-parent families.

Table 2.—Adjusted odds ratios[1] of selected student outcomes, by mothers' and fathers' level of school involvement and family type: Students in grades 1-12, 1996

Parental involvement	Two biological parents	Stepfather families	Stepmother families	Mother-only families	Father-only families
	Gets mostly A's				
Mother's involvement					
Moderate vs. low	1.07	1.77*	1.38	1.05	--
High vs. low	1.20*	1.45	1.55	1.54*	--
Father's involvement					
Moderate vs. low	1.15	1.67*	2.05	--	1.90*
High vs. low	1.42*	1.25	1.13	--	1.77
	Ever repeated a grade				
Mother's involvement					
Moderate vs. low	0.79	0.83	1.62	0.60*	--
High vs. low	0.84	0.88	0.84	0.62*	--
Father's involvement					
Moderate vs. low	0.73*	0.86	0.53	--	1.05
High vs. low	0.67*	0.90	0.66	--	1.11
	Ever suspended or expelled[2]				
Mother's involvement					
Moderate vs. low	0.85	0.81	0.24*	0.77	--
High vs. low	0.65*	0.58*	0.19*	0.59*	--
Father's involvement					
Moderate vs. low	0.86	1.40	1.14	--	0.81
High vs. low	0.78	1.57	1.19	--	0.28*

*$p < .05$.

-- Not applicable.

[1] Odds ratios after adjusting for students' age, sex, and race/ethnicity, mothers' and fathers' education, and household income.

[2] Applies only to students in grades 6 through 12.

NOTE: Low involvement is participation in no or only one activity; moderate involvement is participation in two activities; high involvement is participation in three or more activities. See appendix B, table B3, for adjusted odds ratios for all factors included in the models.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

Two-Biological-Parent Families

Gets mostly A's. When it comes to getting mostly A's, both mothers' and fathers' high involvement increases the odds that students living with both biological parents do well in school. Fathers' high involvement increases the odds of getting mostly A's by 42 percent, and mothers' high involvement increases the odds of getting mostly A's by 20 percent compared to students whose parents have low involvement. Fathers' and mothers' moderate involvement, that is, participation in two

activities, is no different from their low involvement in increasing the odds of students getting mostly A's.

Ever repeated a grade. With respect to grade repetition, it is fathers' involvement in two-biological-parent families that reduces the odds of students' ever repeating a grade. For this outcome, both moderate and high involvement by the father reduces the odds of ever having repeated a grade. Mothers' involvement does not significantly reduce the odds that students have ever repeated a grade. These results are consistent with the notion that fathers' involvement may be particularly important for students' academic achievement.

Ever suspended or expelled. When it comes to having ever been suspended or expelled, however, it is mothers' involvement, not fathers', that matters in two-biological-parent families. Specifically, 6th through 12th graders whose mothers are highly involved in their schools have a 35 percent lower odds of having ever been suspended or expelled compared to students whose mothers have low school involvement. Fathers' school involvement in two-biological-parent families has no statistically significant effect.

Stepfather Families

Gets mostly A's. In stepfather families, the involvement of both mothers and stepfathers is important for academic success (table 2). For these families, however, mothers' involvement is more influential than it is in two-biological-parent families. In the pooled two-parent models, the interaction term between moderate maternal involvement and stepfather families is significant, indicating that the influence of mothers' moderate involvement in stepfather families is greater than is mothers' moderate involvement in two-biological-parent families (table 3). For students in these families, mothers' moderate and high involvement increases the odds of students' getting mostly A's relative to mothers having low involvement. This result is seen most clearly in table 2, but the results in table 3 also support this view. There is a main effect of high maternal involvement on getting mostly A's, suggesting that regardless of which type of two-parent family the students live in, their mothers' high involvement is associated with doing better in school. Moderate involvement by stepfathers also improves the odds of the students doing well, but not stepfathers' high involvement (table 2). Though mothers in stepfather families tend to reduce their involvement compared to mothers' in two-biological-parent families, their involvement in school is, nevertheless, important to the students. Similarly, though stepfathers tend to be uninvolved in

Table 3.—Adjusted odds ratios[1] of selected student outcomes for students living in two-parent families,[2] by mothers' and fathers' level of school involvement: Students in grades 1-12, 1996

Parental involvement	Gets mostly A's	Ever repeated a grade	Ever suspended or expelled[3]
Family type			
Stepfather family vs. two-biological-parent family	0.54*	1.49*	1.58*
Stepmother family vs. two-biological-parent family	0.60	1.28	2.46*
Mother's school involvement			
Moderate vs. low	1.07	0.79	0.90
High vs. low	1.19*	0.84	0.63*
Moderate x stepfather family	1.72*	1.04	0.85
High x stepfather family	1.30	1.02	0.82
Moderate x stepmother family	1.38	2.14	0.37
High x stepmother family	1.38	1.14	0.35
Father's school involvement			
Moderate vs. low	1.16*	0.73*	0.85
High vs. low	1.43*	0.67*	0.76
Moderate x stepfather family	1.36	1.23	1.88
High x stepfather family	0.78	1.34	2.16*
Moderate x stepmother family	1.70	0.79	1.52
High x stepmother family	0.68	1.13	1.58

* $p < .05$.

[1] Odds ratios after adjusting for students' age, sex, and race/ethnicity, mothers' and fathers' education, and household income.

[2] Two-parent families include traditional families, as well as stepfamilies.

[3] Applies only to students in grades 6 through 12.

NOTE: Low involvement is participation in no or only one activity; moderate involvement is participation in two activities; high involvement is participation in three or more activities. See appendix B, table B4 for adjusted odds ratios for all factors included in the models.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

their stepchildren's schools, their moderate involvement, at least, increases the odds that students do well in school. Table 3 also shows, however, that there is a main effect of living in stepfather families that reduces the odds of getting mostly A's relative to living in a two-biological parent family.

Ever repeated a grade. There is also a main effect of living in stepfather families that increases the odds of students ever repeating a grade (table 3). Moreover, neither the mothers' nor the stepfathers' involvement significantly reduces the odds of students ever repeating a grade (table 2). The lack of association between mothers' involvement and students' having ever repeated a grade was also observed for students living with two biological parents. The results for stepfathers, however, are different in this respect from that of fathers' in two-biological-parent families. As shown in table 3, there

are main effects of moderate and high father involvement on reducing the odds that students have ever repeated a grade. Furthermore, none of the interaction terms are significant, suggesting that the association between fathers involvement and having ever repeated a grade is essentially the same for all types of two-parent families.

Ever suspended or expelled. Again, there is a main effect of living in stepfather families that increases the odds of students ever being suspended or expelled (table 3). In stepfather families, just as in two-biological-parent families, it is mothers' high involvement in school that reduces the odds that students' have ever been suspended or expelled. Stepfathers' involvement, if anything, appears to increase the odds that students have ever been suspended or expelled. In table 3, the interaction term for high paternal involvement and stepfather family type is significant. The interaction suggests that students are significantly more likely to have ever been suspended or expelled if their stepfathers are highly involved in their schools. Given the low level of stepfather involvement, it is likely that stepfathers become involved when their stepchildren are experiencing behavioral difficulties rather than the other way around. A longitudinal data set is needed to determine the actual causal paths involved.

Stepmother Families

The models for stepmother families must be cautiously interpreted. Only 376 students in the NHES:96 sample lived in stepmother families. Thus, general tendencies will be described, but definitive statements about the association between parental involvement in stepmother families and student outcomes will need to await future studies based on larger samples of stepmother families.

Gets mostly A's. In the within-family type models shown in table 2, neither stepmothers' nor fathers' involvement in stepmother families significantly affects the odds that students get mostly A's. In the pooled two-parent models shown in table 3, there is a main effect of high mother involvement and moderate and high father involvement on the odds that students get mostly A's, indicating that parental involvement in school is important for all two-parent families. Moreover, the interaction terms for mothers' and fathers' involvement by stepmother families are not significant, suggesting that the association between mothers' and fathers' involvement and students getting mostly A's is the same for stepmother and two-biological parent families. Thus, there is some basis to conclude

that stepmothers' and fathers' involvement in stepmother families helps students do better in school, just as it is helpful among students living with both biological parents.

Ever repeated a grade. Again, in the within-family type models shown in table 2, neither stepmothers' nor fathers' involvement in stepmother families significantly affects the odds that students' have ever repeated a grade. The pooled model in table 3 suggests that mothers' involvement in two-parent families does not significantly lower the odds that students have ever repeated a grade. Fathers' involvement, according to the pooled two-parent model in table 3, does lower the odds that students have ever repeated a grade and the influence of fathers' involvement is the same for all two-parent families and for both moderate and high involvement.

Ever suspended or expelled. Stepmothers' moderate and high involvement significantly lowers the odds that students have ever been suspended or expelled (table 2). The influence is large. The odds are 76 percent lower if stepmothers are moderately involved and 81 percent lower if they are highly involved compared to if they have low involvement. The pooled model in table 3 however, suggests that stepmothers' involvement is no more likely than biological mothers' involvement in two-biological-parent families to reduce the odds that students have ever been suspended or expelled.

Mother-Only Families

Gets mostly A's. Just as in two-parent families, the odds that students living in mother-only families get mostly A's are higher if their mothers are highly involved in their schools than if they have low involvement (table 2). Moderate involvement is not significantly different from low involvement for this outcome, the same pattern observed among students living with two biological parents.

Ever repeated a grade. When it comes to repeating a grade, mothers' moderate and high involvement reduces the odds that students in mother-only families have ever repeated a grade. Thus, in the absence of a father, mothers' involvement becomes important for this outcome. Recall that in two-biological-parent families, it was fathers' involvement rather than mothers' involvement that reduced the odds that students had ever repeated a grade.

Ever suspended or expelled. As in all of the other family types, mothers' high involvement in school reduces the odds that students have ever been suspended or expelled. If mothers in single-parent families are highly involved in schools, the odds that students have ever been suspended or expelled are 41 percent less than if mothers have only low school involvement.

Father-Only Families

Gets mostly A's. Just as in two-biological-parent families, the odds that students get mostly A's are significantly higher if their fathers are involved in their schools.

Ever repeated a grade. Fathers' involvement in father-only families has no significant association with whether students in such families have ever repeated a grade. These students tend to be somewhat older; thus, grade repetition may have occurred before the students began living with their fathers.

Ever suspended or expelled. Among students living in father-only families, fathers' high involvement in their schools significantly reduces the odds that they have ever been suspended or expelled. This is the only family type in which fathers' involvement has a significant effect on the odds. If fathers in single-parent families are highly involved, the odds that students have ever been suspended or expelled are 72 percent less then if fathers have low involvement. Moderate involvement has no significant influence on reducing the odds of having ever been suspended or expelled.

Summary

The above results suggest that fathers' involvement is particularly important for academic achievement, as measured by getting mostly A's and not having repeated a grade. In general, there is no difference in the association between fathers' involvement and student outcomes among students living in the different types of two-parent families. Mothers' involvement is important for getting good grades and for reducing the likelihood that the students will be suspended or expelled. The models suggest that the moderate involvement of mothers in stepfather families is even more influential than the involvement of mothers in two-biological-parent families in the likelihood that students get mostly A's. The association between stepmothers' involvement and student outcomes appears to be similar to that of mothers in two-biological-parent families.

School Involvement of Nonresident Mothers and Fathers

Students' contact with their nonresident mothers and fathers

As noted earlier, information about nonresident parents' involvement in their children's schools was sought only if the students had seen their nonresident parents in the previous year. The majority of students have had at least some contact with their nonresident fathers in the past year, but a substantial minority have had no contact at all (table 4).[16] The students least likely to have had contact with their nonresident fathers are students living with neither parent, and 39 percent of them have had no such contact in the past year. About 28 percent of students living in stepfather families have had no contact with their nonresident father in the past year, and neither have 21 percent of students living in mother-only families. This difference is statistically significant, indicating that students living in mother-only families are more likely than those in stepfather families to have had at least some contact with their nonresident fathers. Consistent with what other studies have found (Nord and Zill 1996), nonresident mothers are more likely than nonresident fathers to maintain contact with their children. A small percentage of students with nonresident mothers have not seen them at all in the past year (table 4). The percentage is highest for students living with neither parent (15 percent) and is similar for students living in stepmother families (7 percent) and in father-only families (6 percent).

Table 4.—Percentage of students, by contact with nonresident parent and family type: Students in grades 1-12, 1996

Contact with parent	Nonresident fathers						Nonresident mothers					
	Stepfather families		Mother-only families		Neither parent		Stepmother families		Father-only families		Neither parent	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
No contact in last year	28	1.8	21	1.0	39	3.6	7	1.8	6	1.2	15	2.7
Infrequent contact	12	1.1	14	0.9	10	1.5	10	2.1	5	1.2	10	1.6
Once/month or less	21	1.5	17	0.9	16	2.2	16	2.3	16	2.1	18	2.6
About twice/month	10	1.0	7	0.6	5	1.2	10	2.1	8	1.7	7	1.9
3 or 4 times/month	14	1.2	12	0.8	9	1.5	18	2.8	11	1.8	14	2.2
Once/week or more	10	0.9	22	1.0	14	2.0	8	1.8	20	2.2	21	2.5
Spend ½ time or more	5	0.7	7	0.6	7	1.3	31	3.4	33	2.7	14	2.0

NOTE: Infrequent contact is defined as students who have had contact with their nonresident parent in the last year but who do not *see* their nonresident parent in a typical month and have not *seen* their nonresident parent in the last year. s.e. is standard error. Because of rounding, percents may not add to 100.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

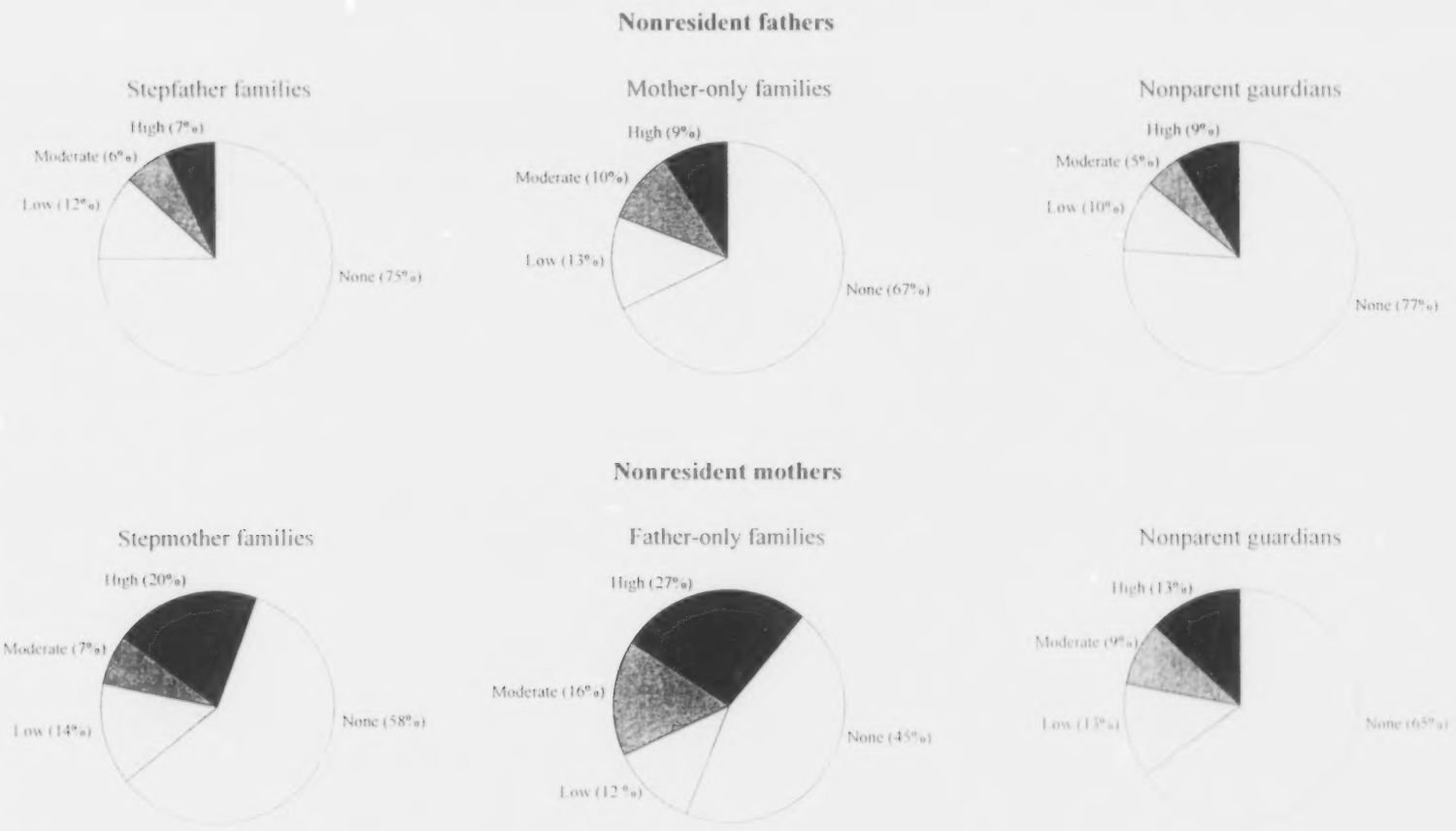
[16] Students whose nonresident parent is deceased are excluded from all analyses of nonresident parent contact and involvement in their schools.

Students from nontraditional families who live with their fathers are more likely than those who live with their mothers to spend substantial time with their nonresident parent: 31 percent of students in stepmother families and 33 percent in father-only families spend half their time or more with their nonresident mother (table 4). In contrast, 5 percent of students in stepfather families and 7 percent of students in mother-only families spend half their time or more with their nonresident fathers. This suggests that a substantial portion of fathers who have custody of their children have joint custody arrangements. This result is in accord with data from the U.S. Bureau of the Census, which estimates that 33 percent of custodial fathers in 1991 had joint custody arrangements (Scoon-Rogers and Lester 1995). It may also be a factor in explaining the higher levels of contact of nonresident mothers compared to nonresident fathers. This result also means that stepmother and father-only families may be more likely than stepfather and mother-only families to have the additional complexity of incorporating the involvement of the nonresident parent into the constellation of relationships that exist in the family.

Level of Nonresident Mothers' and Fathers' School Involvement by Family Type

The majority of nonresident fathers who maintain contact with their children are not involved in their children's schools. Seventy-five percent of students living in stepfather families who have had contact with their nonresident father in the past year have a nonresident father who participated in none of the four school activities (figure 9). Similarly, 77 percent of students living with neither parent and 67 percent living in mother-only families who have had some contact with their nonresident father have a nonresident father who participated in none of their school activities. In contrast, 39 percent of students living with stepfathers—the least involved of the resident fathers—have a stepfather who participated in none of their school activities (data not shown). As with contact, students living in mother-only families are significantly more likely than those in stepfather families to have nonresident fathers who participated in at least some of their school activities. Both contact and involvement data together indicate that students in stepfather families are particularly unlikely to have a father of any type involved in their schools. If, as research has suggested, father involvement is helpful for academic achievement, this lack of involvement could help to account for the lower achievement of students living in stepfather families relative to students living with both their parents.

Figure 9.—Percentage distribution of students who have had contact with nonresident parent in past year, by nonresident mothers' and fathers' involvement in school and family type: Students in grades 1-12, 1996



NOTE: Low involvement is participation in one activity; moderate involvement is participation in two activities; high involvement is participation in three or more activities. Because of rounding, percents may not add to 100.

SOURCE: U.S. Department of Education, National Center of Education Statistics, 1996 National Household Education Survey

Nonresident mothers are more likely than nonresident fathers to be involved in their children's schools. The higher involvement may be due in part to the fact that they are more likely than nonresident fathers to have joint custody arrangement. Still many of them are not involved. Among students who have had contact with their nonresident mothers in the past year, 58 percent living in stepmother families, 45 percent living in father-only families, and 65 percent living with neither parent have a nonresident mother who had not participated in any school activities (figure 9). Part of the reason that nonresident mothers and fathers show low levels of involvement in their children's schools may be that many of them do not live nearby and thus find it difficult to participate. According to data from the 1990 Survey of Income and Program Participation conducted by the U.S. Bureau of the Census, 38 percent of nonresident parents live in the same city or county as their children (Nord and Zill 1996). This same study found that contact decreased substantially as parents moved away from the city or county in which their children lived. Such information was not collected in the NHES:96, so it is not possible to determine the extent to which distance is interfering with the involvement of nonresident parents in their children's schools.

Students living in father-only families are more likely than those living in stepmother families to have a nonresident mother who participated in at least some of their school activities. This result parallels the findings for nonresident fathers' involvement. There are a variety of explanations for the finding that students living in single-parent families are more likely than those living with stepparents to have nonresident parents who have some involvement in their schools. It may be that their parents have only recently separated or divorced. We know from existing research that contact (and presumably involvement in school) decreases the longer the period since separation or divorce (Furstenberg et al. 1983). It may also be that the presence of stepparents deters their involvement. The information needed to explore these possibilities, however, is not available in the NHES:96.

Nonresident mothers are more likely than nonresident fathers to have participated in at least three of the four school activities (figure 9). Twenty percent of students in stepmother families have a nonresident mother who is highly involved in their schools. Among students in father-only families, 27 percent have nonresident mothers who are highly involved. Among students living with neither parent, 13 percent have a nonresident mother with high involvement. For nonresident fathers, the proportion of those highly involved is similar across the three nontraditional family types (i.e., high involvement ranging from 7 to 9 percent). For both mothers and fathers, nonresident parents are significantly less likely than resident parents to be involved in their children's schools (compare figures 3 and 9).

Type of School Activities Nonresident Mothers and Fathers Attend by Family Type

As with resident parents, (figure 6) nonresident mothers and fathers are less likely to volunteer than they are to participate in the other school activities (figure 10). Four percent of students living in mother-only families, 3 percent in stepfather families, and 2 percent living with nonparent guardians have nonresident fathers who volunteered in their schools. The same is true of students with nonresident mothers, but the proportion of such students whose nonresident mother has volunteered is generally higher. Ten percent of students living in stepmother families, 16 percent living in father-only families, and 6 percent living with nonparent guardians have a nonresident mother who has volunteered at the school this year. The higher percentage among students living in father-only families may partly reflect the fact that one-third of these students spend half time or more with their nonresident mothers. However, the same is true of students living in stepmother families, and such students are marginally less likely than those in father-only families to have a nonresident mother who volunteered in their schools.

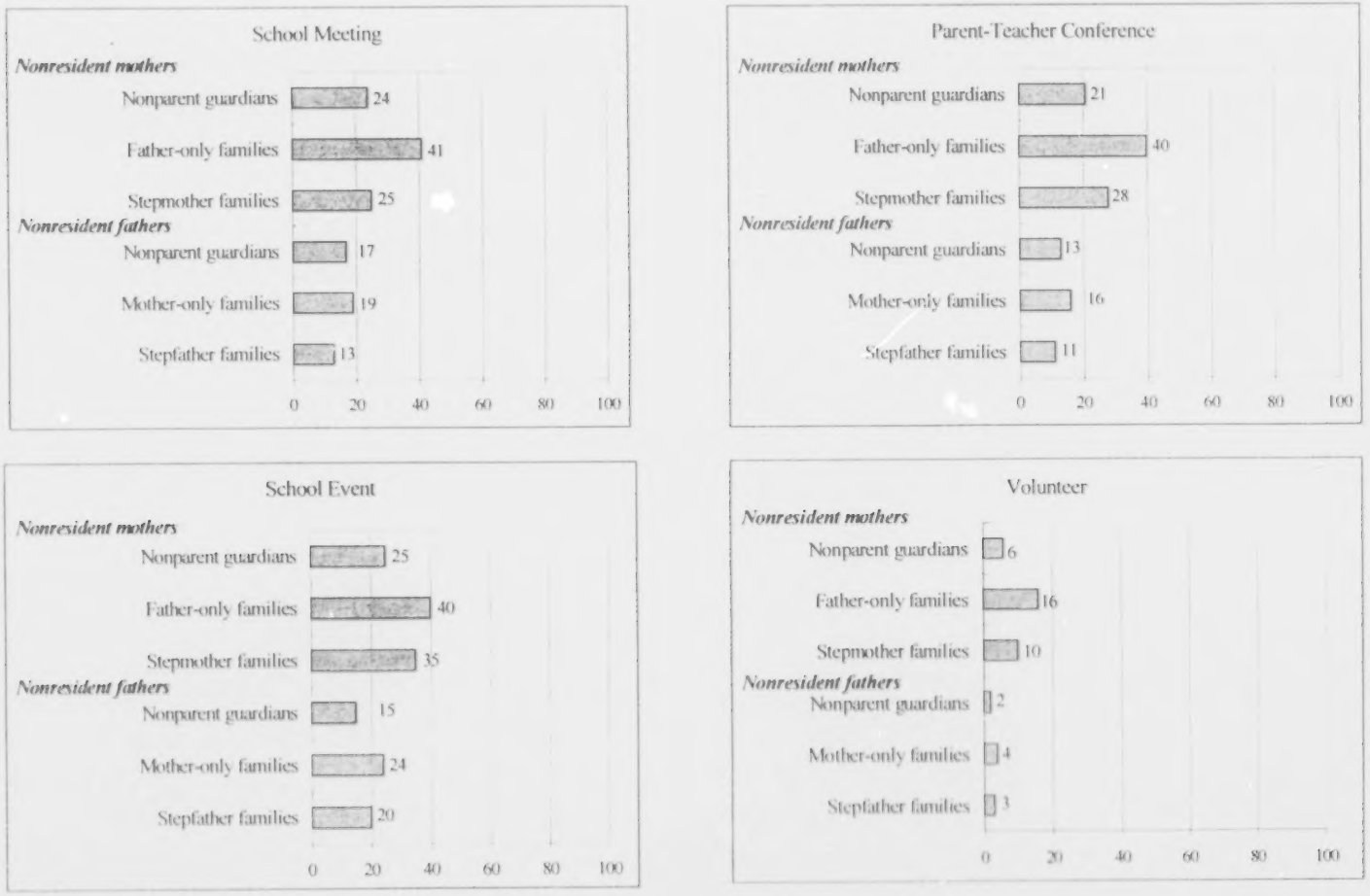
The nonresident fathers of students living in stepfather families and in mother-only families are more likely to attend school events than they are to attend parent-teacher meetings, a pattern that was observed for resident fathers in two-biological-parent families. The same is not true of nonresident mothers, who are about equally likely to attend school events and parent-teacher conferences. Though it appears as if students in stepmother families are more likely to have a nonresident mother attend a school event than a parent-teacher meeting, the difference is not significant. This, too, reflects the pattern that was observed for resident mothers in two-biological-parent families. Thus, nonresident parents, despite their lower overall involvement than resident parents in two-biological-parent families, are retaining some of the same patterns of involvement.

Earlier, we saw that students living in single-parent families were more likely than students in stepparent families to have nonresident parents who were involved in their schools. Another sign that students in single-parent families are more likely than students in stepfamilies to have nonresident parents who take an active role in their education is that their nonresident mothers and fathers are more likely to attend parent-teacher meetings than the nonresident parents of students in stepfamilies.

Association Between Contact with Nonresident Mothers and Fathers and Their Involvement in School

Because nonresident parents must have had some contact with their children in order for information to be collected about their involvement in their children's schools, the measures of

Figure 10.—Percentage of students, by type of nonresident fathers' and mothers' involvement in school and family type: Students in grades 1-12, 1996



SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

involvement in school and contact with the nonresident parent are correlated.[17] Among students with nonresident fathers whom they have seen in the past year, the Pearson correlation coefficient[18] between contact and involvement is 0.48 and among students with nonresident mothers whom they have seen in the past year, it is 0.60. These associations indicate that involvement in school tends to increase as contact increases but that the two measures are not identical; that is, they are not perfectly collinear.

Student Outcomes and the Involvement of Nonresident Fathers and Mothers

As noted earlier, existing research is mixed about whether the continuing involvement of nonresident parents is important to children's lives. Because most nonresident parents are fathers, the majority of studies have examined the influence of the involvement of nonresident fathers' on children's well-being. Several large-scale studies have found no association between the amount of contact a nonresident father has with his children and an assortment of measures of child well-being (King, 1994; Furstenberg, Morgan, and Allison 1987). Other studies, however, find that continued father involvement, as measured by frequency of contact, is beneficial for children (Wallerstein and Kelly 1980). Prior research by Nord, Brimhall, and West (1997) found that students whose nonresident fathers were involved in their schools did better in school than students whose nonresident fathers were not involved. They were more likely to get mostly A's and less likely to have ever repeated a grade or been suspended or expelled. These results are consistent with the conclusions of a recent meta-analysis of studies that examined nonresident fathers' involvement in children's lives (Amato and Gilbreth 1999). That study suggested that fathers needed to assume a meaningful role in their children's lives, not just maintain contact, to exert a positive influence on the children.

In this section, we examine the association between student outcomes and nonresident fathers' and mothers' involvement in their children's schools and amount of contact with their children. One other type of involvement is also examined—whether the nonresident parent paid any child support in the last year. All children with nonresident fathers or nonresident mothers are included so that contrasts can be made between children with and without any contact with their nonresident parents. For each outcome, three models are presented. All the models adjust for the student's age, sex, and race/ethnicity, family income, resident parent's education, family type, and whether the nonresident parent had any contact with the student in the previous year. Each model also includes an indicator of

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[17] See the Methodology and Data Reliability section for a description of how involvement and contact and other derived variables were constructed. Both are categorical variables. Involvement has four categories, contact has six categories.

[18] The Pearson correlation coefficient measures the strength and direction of a linear relationship between two variables.

whether the nonresident parent paid any child support in the last year. In addition, the first model includes information on the nonresident parent's level of school involvement. The second model substitutes amount of contact with the nonresident parent for the nonresident parent's level of school involvement. The third model includes information on both level of school involvement and amount of contact. By comparing the three models, it is possible to assess which is more important for students—active involvement of the nonresident parent in school or amount of contact with the parent. In these models, moderate and high involvement are combined and are labeled as "moderate-high" in the tables. They were combined because less than 10 percent of nonresident fathers were highly involved in the students' schools.

Nonresident Fathers

Level of school involvement. It is apparent from table 5 that nonresident fathers' involvement in their children's schools is associated with students' doing better in school. Looking at model 1 for each of the three outcomes, students are more likely to get mostly A's and are less likely to have ever repeated a grade or to have ever been suspended or expelled if their fathers have some involvement in their schools. The odds that students get mostly A's are 39 percent higher if nonresident fathers have moderate to high involvement in their school compared to fathers who have seen the students in the last year but have had no involvement in their schools. Similarly, the odds that they have ever repeated a grade are 45 percent less if their nonresident fathers are moderately to highly involved in their schools compared to fathers who have had contact with the students but are not involved in their schools. It is interesting that nonresident fathers' school involvement decreases the odds that students have ever been suspended or expelled. Recall that in the resident parent models presented earlier, it was resident mothers' involvement, not resident fathers' involvement, that influenced the odds that students' had ever been suspended or expelled.

Payment of child support. The second form of parental involvement, payment of child support, is consistently important for the students across the three outcomes. Students whose nonresident fathers paid any child support in the last year are more likely to get mostly A's and are less likely to have ever repeated a grade or ever been suspended or expelled than students whose nonresident fathers paid no child support. This result is consistent with other studies which find that payment of child support is linked to academic achievement (Knox and Bane 1994; Baydar and Brooks-Gunn 1994) and lower levels of school behavior problems (McLanahan et al. 1994).

Amount of contact. The measure of contact used in the logistic regression models is a transformed version of the measure of contact shown in table 2. The interpretation of the odds ratio for the contact variable is the relative change in odds for each additional *week* of contact (see the Methodology and Data Reliability section for more details). The results in table 5 show that amount of contact is less consistently related to each of the three outcomes than is the nonresident fathers' level of school involvement. There is no effect of amount of contact on the odds that students get mostly A's (model 2). The odds that students have ever repeated a grade or have ever been suspended or expelled are reduced as the students see their nonresident fathers more often (model 2). However, the association

Table 5.—Adjusted odds ratios of selected student outcomes, by selected measures of nonresident mothers' and fathers' involvement in the students' lives: Students in grades 1-12, 1996

Characteristic	Gets mostly A's			Ever repeated a grade			Ever suspended or expelled[1]		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Nonresident father's involvement									
Moderate-high vs. contact in last year, no school involvement	1.39 *	--	1.48 *	0.55 *	--	0.65	0.41 *	--	0.43 *
One activity vs. contact in last year, no school involvement	1.32 *	--	1.19 *	0.58 *	--	0.64 *	0.49 *	--	0.51 *
No contact in last year vs. contact in last year, no school involvement	0.89	0.83	0.86	0.99	0.94	0.91	0.82	0.84	0.80
Never contact with child vs. contact in last year, no school involvement	1.08	1.01	1.05	0.80	0.76	0.73	0.61 *	0.63 *	0.60 *
Nonresident father paid any child support in last year	1.19 *	1.21 *	1.19 *	0.73 *	0.70 *	0.72 *	0.56 *	0.55 *	0.55 *
Nonresident father's amount of contact in the last year	--	1.00	0.99	--	0.97 *	0.98	--	0.98 *	0.99
Nonresident mother's involvement									
Moderate-high vs. contact in last year, no school involvement	1.14	--	1.25	0.82	--	0.97	0.79	--	0.93
One activity vs. contact in last year, no school involvement	1.86 *	--	1.93 *	0.78	--	0.83	0.77	--	0.82
No contact in last year vs. contact in last year, no school involvement	1.43	1.26	1.39	0.46 *	0.44 *	0.43 *	1.08	1.04	1.01
Nonresident mother paid any child support in last year	1.12	1.15	1.11	0.80	0.78	0.79	0.59	0.57	0.58
Nonresident mother's amount of contact in the last year	--	1.00	0.99	--	0.98	0.98	--	0.98	0.99

* $p<.05$.

--Not applicable

[1] Applies only to students in grades 6 through 12.

NOTE: Moderate involvement is participation in two activities; high involvement is participation in three or four activities. Adjusted for students' age, sex, race/ethnicity, family income, resident parents' education, and family type. See appendix B, tables B5 and B6, for adjusted odds ratios for all factors in the models.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

between contact and the student outcomes is weakened (ever repeat a grade) or disappears (ever suspended or expelled) when level of school involvement is included in the models (model 3). The association between school involvement and the student outcomes generally remains strong. This pattern of results suggests that students are more successful in school when their fathers are actively engaged in their lives through contact with them and involvement in their schools than when their fathers just have contact with them.

Nonresident Mothers

Levels of school involvement. Although nonresident mothers are significantly more likely to be involved in their children's schools than nonresident fathers, the benefits of their involvement are not as apparent. Students whose nonresident mothers have participated in one school activity are more likely to get mostly A's than students whose mothers have contact with them but are not involved in their schools. However, the nonresident mothers' moderate to high involvement in their schools is no different from contact with no involvement when it comes to getting mostly A's. With resident mothers, it was high involvement in school that was associated with the odds that students got mostly A's, except for mothers in stepfather families where moderate involvement was also important.

There is no detectable association between the nonresident mothers' school involvement and the odds that students have ever repeated a grade. Of course, as we saw earlier, the involvement of resident mothers in two-parent families also has no effect on the odds that students have ever repeated a grade. Thus, the lack of association of nonresident mothers' involvement and this outcome is not surprising. However, there is also no detectable association between nonresident mothers' school involvement and the odds that students have ever been suspended or expelled. Resident mothers' high involvement significantly reduced the odds that students had ever been suspended or expelled.

Payment of child support. Nonresident mothers' payment of child support has no statistically significant association with any of the three outcomes.

Amount of contact. As with the other measures of involvement, the amount of contact nonresident mothers have with their children has no significant association with the three student outcomes. The data suggest, however, that students who have had no contact with their nonresident mothers in the last year are less likely to have ever repeated a grade than are students who have seen their nonresident mothers, but whose mothers are not involved in their school. A similar pattern is seen for

nonresident fathers and the odds that students have ever been suspended or expelled. Because the NHES:96 is a cross-sectional data set not too much emphasis should be placed on these results. However, they hint at the possibility that a *little* contact *without real engagement in the children's lives* may be more difficult for children than no contact at all. There is some support for this speculation in the literature (Nord and Zill 1996).

What could explain the fact that nonresident mothers' school involvement, payment of child support, and contact with their children appear generally unimportant for student outcomes while nonresident fathers' school involvement and payment of child support are consistently important? There are several possibilities. It may be that the smaller sample size of students with nonresident mothers makes it more difficult to find statistically significant results when they exist. This seems an unlikely explanation, however, because a sample size of 1,369 students should be sufficient to identify some differences. A second possibility is that nonresident mothers are different from resident mothers in ways that may affect the influence that they have on their children. Although it is becoming more common, it is still relatively rare for fathers to be awarded custody of their children following separation or divorce. Thus, the population of nonresident mothers may be more selective than the population of nonresident fathers. It may also be that students find it more difficult to live apart from their mothers and, thus, no matter what the extent of their mothers' involvement, it cannot make up for her living apart from them. It is not possible with the NHES:96 to determine which explanation or combination of explanations accounts for the lack of results. This is an area that merits additional research attention.

Summary and Discussion

This report has examined the school involvement of American mothers and fathers, both those who live with their children and those who live apart from their children. It provides new national data on the school involvement not only of biological mothers and fathers but also of stepmothers and stepfathers and examines the relationship of parental school involvement to three measures of how children are doing in school. In 1996, 57 percent of students in grades 1 through 12 lived with both their own parents. The remaining 43 percent lived in some other family arrangement, including single-parent, stepparent, or nonparent guardian families. Typically, students living in nontraditional families such as these do less well in school than those who live with both their own parents, although the reasons are not fully understood. These students, however, are likely to continue to represent a substantial proportion of the school-aged population. Thus, it is important to learn more about them and what can be done to help them. The data presented in this report provide schools, families, and policymakers with new insights into parental school involvement in traditional and nontraditional families and the influence of that involvement on students' school success.

Involvement in school was measured by the number of different types of activities that parents have participated in since the beginning of the school year. The activities are fairly typical of those available in most schools: attending a general school meeting, attending a regularly scheduled parent-teacher conference, attending a school or class event, and volunteering at the school. Resident parents were said to have low involvement in their children's schools if they had done none or one of the four activities. They were categorized as having moderate involvement if they had done two of the activities. They were said to be highly involved in their children's schools if they had done three or more of the activities. For nonresident parents, a distinction was made between no school involvement and participation in one school activity. In the logistic regression models, nonresident parents with moderate and with high involvement were combined because fewer than 10 percent of nonresident fathers were highly involved. The measures of how students are doing in school are whether the parents report that they get mostly A's, have ever repeated a grade, and, among 6th through 12th graders, whether they have ever been suspended or expelled. This section summarizes the major findings of the report.

Stepparents tend to be less involved than biological parents in their children's schools, but their involvement can be associated with better outcomes for students.

After adjusting for student and family characteristics, students living with stepmothers are significantly less likely than those living with two biological parents or in mother-only families to have a mother who is highly involved in their schools. Similarly, students living with stepfathers are significantly less likely than students living with both biological parents or in father-only families to have a father who is highly involved in their schools. In 1996, 39 percent of students in stepmother families had a mother who was highly involved in their schools compared to 58 percent of students living with both biological parents and 48 percent living in mother-only families. Similarly, 17 percent of students in stepfather families had a father who was highly involved in their schools compared to 28 percent living with both biological parents and 46 percent living in father-only families. Logistic regression analyses reveal, however, that moderate school involvement of stepfathers increases the odds that students get mostly A's in school and that the school involvement of stepmothers reduces the odds that students have ever been suspended or expelled.

In general, the association between the school involvement of stepparents and student outcomes is the same as that of biological parents in traditional families.

Logistic regression models were estimated that explored whether the association between maternal and paternal involvement and student outcomes varied by family type. For most of the outcomes, the association between stepparents' involvement and the outcomes was not significantly different from that of parents in two biological-parent families. The one exception was the influence of stepfathers on whether 6th- through 12th-graders had ever been suspended or expelled. For this outcome, the involvement of stepfathers is associated with a greater likelihood of the students' having ever been suspended or expelled. Given the generally low involvement of stepfathers, it is possible that this counterintuitive finding is due to stepfathers becoming involved when their stepchildren are experiencing behavior problems rather than to their involvement contributing to behavior problems. A longitudinal data set and additional controls are needed to establish the actual direction of causality.

Single mothers and fathers are involved in their children's schools and their involvement is associated with better school outcomes for their children.

Forty-eight percent of students living in mother-only families and 46 percent living in father-only families had parents who were highly involved in their schools. Mothers' high involvement in mother-only families increases the odds that students get mostly A's, and decreases the odds that students have ever repeated a grade or ever been suspended or expelled. Fathers' moderate involvement in father-only families increases the odds that students get mostly A's and their high involvement decreases the odds that students have ever been suspended or expelled.

Nonresident mothers are more likely than nonresident fathers to maintain contact with their children and to be involved in their children's schools. However, the association between their school involvement and students outcomes is weaker than that of nonresident fathers' involvement.

Twenty-one percent of students in mother-only families and 28 percent in stepfather families have had no contact with their nonresident fathers in the last year. In contrast, 6 percent of students in father-only families and 7 percent in stepmother families have had no contact with their nonresident mothers in the past year. Even when nonresident parents maintain contact with their children, relatively few are involved in their children's schools. Seventy-five percent of students in stepfather families and 67 percent in mother-only families who have seen their nonresident father in the past year have fathers who participated in none of the four school activities. The proportion is much lower for nonresident mother, but still substantial. Fifty-eight percent of students in stepmother families who have had contact with their nonresident mother in the last year have a nonresident mother who participated in none of their school activities, as do 45 percent of students living in father-only families. In spite of the relatively low school involvement of nonresident fathers, logistic regression models show that nonresident fathers' involvement increases the odds that students get mostly A's and decreases the odds that they have ever repeated a grade or been suspended or expelled. The models further show that involvement in school is more consistently associated with these three measures of how students are doing than is frequency of contact with the students. Thus, what may matter for students' school success is the fathers' active participation in their children's schools. There is some evidence that nonresident mothers' school involvement increases the odds that students get mostly A's, but their involvement is not significantly associated with the other two outcomes. Frequency of contact with the nonresident mother also has no significant association with the outcomes.

The results presented in this report suggest that parental involvement in school is generally associated with favorable school outcomes for students living in different types of families. Fathers' involvement seems to be generally important regardless of whether they are biological parents or stepparents or whether they live with the students or not. Resident mothers' involvement also seems to matter to students, but nonresident mothers' school involvement is only weakly associated with one of the student outcomes, getting mostly A's. Parents in both traditional and nontraditional families should recognize that involvement in their children's schools appears to be beneficial to their children, at least with respect to their school progress.

Methodology and Data Reliability

Survey Methodology

The 1996 National Household Education Survey (NHES:96) is a telephone survey conducted by Westat for the U.S. Department of Education, National Center for Education Statistics (NCES). Data collection took place from January through April of 1996. The sample was selected using list-assisted, random-digit-dialing (RDD) methods. Data were collected using computer-assisted telephone interviewing (CATI) technology. The sample was drawn from the civilian, noninstitutionalized population in households with telephones in the 50 states and the District of Columbia. The estimates were adjusted to totals of persons living in both telephone and nontelephone households using information from the Current Population Survey (CPS). Thus, inferences can be made to the entire civilian, noninstitutionalized population for the domains of interest.

The Parent/Family Involvement in Education (PFI) component of the NHES:96, which is the basis of this report, employed a sample of children and youth from age 3 through 12th grade. Up to three instruments were used to collect information included in this report. The first instrument was a set of household screening items (Screener) administered to an adult member of the household, which was used to determine whether any children of the appropriate ages lived in the household, to collect information on each household member, and to identify the appropriate parent/guardian to respond for the sampled child. For sampling purposes, children residing in the household were grouped into younger children (age 3 through grade 5) and older children (in grades 6 through 12). One younger child and one older child from each household could have been sampled for the NHES:96. If the household contained more than one younger child or more than one older child, one from each category was randomly sampled as an interview subject. For households with youth in 6th through 12th grades who were sampled for the survey, an interview was conducted with the parent/guardian most knowledgeable about the care and education of the youth; following completion of that interview and receipt of parental permission, an interview also was conducted with the youth. Only the Screener and the parent/guardian interview were used in this report.

Response Rates

For the NHES:96 survey, Screeners were completed for 55,838 households, of which 19,337 contained one or more sampled children. The response rate for the Screener was 69.9 percent. A total of 20,792 PFI interviews with parents of children age 3 through 12th grade were completed. The completion rate for this interview (the percentage of interviews completed with parents of sampled children) was 89.4 percent. Thus, the overall response rate for the PFI interview with parents (i.e., the product of the Screener response rate and the parent interview completion rate) was 62.5 percent.[19]

For the NHES:96, item nonresponse (the failure to complete some items in an otherwise completed interview) was very low. For some items in the interview, a response of "don't know" or "do not wish to answer" was accepted as a legitimate response. Using an imputation method called a "hot-deck procedure" (Kalton and Kasprzyk 1986), responses were imputed for missing values (i.e., "don't know" or "do not wish to answer" for items not specifically designated to have those legitimate response categories, or "not ascertained"). As a result, no missing values remain. Item nonresponse rates for the student outcomes are 1 percent for students' grades, 0.25 percent for ever repeated a grade, and 0.15 percent for ever suspended or expelled. The nonresponse rates for the resident parents' school involvement variables are all less than 2 percent. The nonresponse rates for the nonresident parents' school involvement items are slightly higher—around 6 percent for each activity.

Data Reliability

Estimates produced using data from the NHES:96 are subject to two types of error, sampling and nonsampling errors. Nonsampling errors are errors made in the collection and processing of data. Sampling errors occur because the data are collected from a sample rather than a census of the population. See the *Data File User's Manual* for more information on the sample, sampling and nonsampling errors, and related topics (U.S. Department of Education 1997).

Nonsampling errors

Nonsampling error is the term used to describe variations in the estimates that may be caused by population coverage limitations and data collection, processing, and reporting procedures. The sources

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[19] For more information on the NHES:96 response rates see U.S. Department of Education (1997).

of nonsampling errors are typically problems like unit and item nonresponse, the differences in respondents' interpretations of the meaning of questions, response differences related to the particular time the survey was conducted, and mistakes in data preparation.

In general, it is difficult to identify and estimate either the amount of nonsampling error or the bias caused by this error. In the NHES:96, efforts were made to prevent such errors from occurring and to compensate for them where possible. For instance, during the survey design phase, focus groups and cognitive laboratory interviews were conducted for the purpose of assessing respondent knowledge of the topics, comprehension of questions and terms, and the sensitivity of items. The design phase also entailed CATI instrument testing and an extensive, multicycle field test.

An important nonsampling error for a telephone survey is the failure to include persons who do not live in households with telephones. About 93 percent of all students in kindergarten through 12th grade live in households with telephones. Since the sample for the NHES:96 was drawn from households with telephones, the estimates were adjusted using control totals from the Census Bureau's Current Population Survey (CPS) so that the totals were consistent with the total number of civilian, noninstitutionalized persons in all (telephone and nontelephone) households.

Another potential source of nonsampling error is respondent bias. Respondent bias occurs when respondents systematically misreport (intentionally or unintentionally) information in a study. There are many different forms of respondent bias. One of the best known is *social desirability bias*, which occurs when respondents give what they believe is the socially desirable response. For example, surveys that ask about whether respondents voted in the most recent election typically obtain a higher estimate of the number of people who voted than do voting records. Although respondent bias may affect the accuracy of the results, it does not necessarily invalidate other results from a survey. If there are no systematic differences among specific groups under study in their tendency to give socially desirable responses, then comparisons of the different groups will accurately reflect differences among the groups. In this report, there may be a tendency for respondents to say that they participated in a school activity when they did not. There is no a priori reason, however, to believe that parents in two-parent families are more likely than those in single-parent families or that mothers are more likely than stepmothers to give the socially desirable response. Thus, it is likely that contrasts in this report reflect true differences between parents in single-parent and in two-parent families and between stepparents and biological parents.

Another form of respondent bias occurs when respondents give unduly positive assessments about those close to them. For example, parents may give rosier assessments about their children's school experiences than might be obtained from school records or from the children themselves. It is possible that parents who are highly involved in their children's schools are more likely than those who are not so involved to say that their children are doing well in school. However, it is also possible that parents who are highly involved in their children's schools have more information than those who are less involved on which to base their reports. This information could be positive or negative. Thus, it is equally conceivable that parents who are highly involved in their children's schools are less likely than other parents to give rosy assessments of their children's school experiences. Readers should be aware that respondent bias may be present in this survey as in any survey. It is not possible to state precisely how such bias may affect the results.

Sampling errors and weighting

The sample of telephone households selected for the NHES:96 is just one of many possible samples that could have been selected. Therefore, estimates produced from the NHES:96 sample may differ from estimates that would have been produced from other samples. This type of variability is called sampling error because it arises from using a sample of households with telephones, rather than all households with telephones.

The standard error is a measure of the variability due to sampling when estimating a statistic. Standard errors for estimates presented in this report were computed using a jackknife replication method. Standard errors can be used as a measure of the precision expected from a particular sample. The probability that a complete census count would differ from the sample estimate by less than 1 standard error is about 68 percent. The chance that the difference would be less than 1.65 standard errors is about 90 percent, and that the difference would be less than 1.96 standard errors, about 95 percent.

Standard errors for all of the estimates in this report have been calculated. The standard errors for figures 1, 2, 3, 5, 6, 7, 9, and 10 are contained in appendix A. Standard errors can be used to produce confidence intervals. For example, an estimated 28 percent of fathers in two-biological parent families have high levels of involvement in their children's schools, and this statistic has a standard error of 0.5. Therefore, the 95 percent confidence interval for this statistic is approximately 27 to 29 percent. That is, we can conclude with 95 percent confidence that the interval contains the true percent in the population.

All of the estimates in this report are based on weighting the observations using the probabilities of selection of the respondents and other adjustments to partially account for nonresponse and coverage bias. These weights were developed to make the estimates unbiased and consistent estimates of the national totals. In addition to properly weighting the responses, special procedures for estimating the statistical significance of the estimates were employed because the data were collected using a complex sample design. Complex sample designs, like that used in the NHES, result in data that violate some of the assumptions that are normally required to assess the statistical significance of the results. Frequently, the standard errors of the estimates from the survey are larger than would be expected if the sample was a simple random sample and the observations were independent and identically distributed random variables. WesVarPC was used in this analysis to calculate standard errors for both bivariate estimates and regression analyses.

Replication methods of variance estimation were used to reflect the actual sample design used in the NHES:96. A form of the jackknife replication method was used to compute approximately unbiased estimates of the standard errors of the estimates in the report. The jackknife methods were used to estimate the precision of the estimates for the reported national totals, percentages, and regression parameters. To test the differences between estimates, Student's statistic was employed, using unbiased estimates of standard errors derived by the replication methods mentioned above.

As the number of comparisons at the same significance level increases, it becomes more likely that at least one of the estimated differences will be significant merely by chance; that is, it will be erroneously identified as different from 0. Even when there is no statistical difference between the means or percentages being compared, there is a 5 percent chance of getting a significant F or *t* value from sampling error alone. As the number of comparisons increases, the chance of making this type of error also increases. A modified Bonferroni adjustment procedure known as the Bonferroni-Holm procedure was used to correct significance tests for multiple comparisons. This method adjusts the significance level for the total number of comparisons made with a particular classification variable. However, rather than use the same adjusted significance level for all contrasts as the Bonferroni procedure does, the Bonferroni-Holm procedure uses a graduated series of alpha levels for the contrasts (DeMaris 1995; Holland and Copenhaver 1988). The standard Bonferroni procedure is quite conservative in order to control the probability of asserting that an estimated difference is significant when it is not. However, as a consequence, it increases the probability that a difference will be declared not significant when it is in fact different. The Bonferroni-Holm procedure is less conservative, reducing the probability that true

differences will be declared insignificant. All the differences cited in this report are significant at the 0.05 level of significance after a Bonferroni-Holm adjustment, unless stated otherwise.

Derived Variables

A number of variables used in this report were derived by combining information from two or more questions in the NHES:96 parent interviews. The derivation of key variables is described in this section. Original variables from the NHES:96 appear in all upper case letters. The created variables appear in lower case letters. See the *NHES:96 User's Manual* (U.S. Department of Education 1997) for the precise wording of the questions.

Parent involvement variables

Attendance at a general school meeting. Two versions of the involvement questions were asked of split-half samples of parent respondents. These two versions differed only with respect to the question about attending general school meetings. The first version consisted of only one question (FSMEETING). The second version consisted of two questions (FSBAC and FSATTPTA). For this report, the two versions of items measuring involvement in general school meetings were combined into a single measure.[18] Respondents who received the second version that consisted of two questions were said to have attended a general school meeting if they had responded yes to either one of the two types of meetings. They were said not to have attended a general school meeting if they had not attended either type of meeting.

Number of school activities parents participated in. Information on whether any adult had attended each of the four types of school activities and which adult had attended was used to create indicators of maternal and paternal involvement. For each activity that either the mother or both parents had attended, the indicator of maternal involvement was increased by one. Similarly, for each activity that the father or both parents had attended, the indicator of father involvement was increased by one. The indicators range from 0 (no activities attended) to 4 (all four activities attended). Parallel variables were created for nonresident fathers and mothers who had had contact with their children in the past year.

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[18] Prior analyses have shown that the two approaches yield the same estimates of attendance at general school meetings. See footnote 6 for more details.

High maternal and paternal involvement. The variables measuring high maternal and paternal involvement were based on the indicators described above. Two dichotomous variables were created that were assigned a value of 1 if the parents had attended three or four of the activities and were assigned a value of 0 if they had attended none, one, or only two of the activities. Parallel variables were created for nonresident fathers and mothers who had had contact with their children in the past year. In our analyses of the nonresident parents, however, the dichotomy was between nonresident parents who had participated in two or more activities in their children's schools versus those who had participated in none or only one activity. This was done because the percentage of nonresident parents who were highly involved was much smaller than for resident parents. Thus the analyses of nonresident parents' school involvement examined their moderate-to-high involvement rather than their high involvement.

Children's contact with their nonresident parents. The measure of children's contact with their nonresident fathers and mothers has the following categories:

- Has not had contact with the nonresident parent in more than 1 year or has never had contact with the nonresident parent;
- Has had contact by phone or letter with the nonresident parent in the past year but does not see the parent in a typical month and has not seen the parent in the last year;
- Sees the nonresident parent approximately once a month;
- Sees the nonresident parent approximately twice a month;
- Sees the nonresident parent approximately three to four times a month;
- Sees the nonresident parent once a week or more; and
- Lives about half time or more with the nonresident parent.

The NHES:96 contained a variety of items that obtained information on contact with the nonresident parents. The variable on contact with the nonresident parent incorporated information about which parent the child usually lives with during the school year, the length of time since the child has lived in the same household with the nonresident parent, whether the child currently has contact with the nonresident parent, the length of time since the child last had contact with the nonresident parent, the frequency of current contact, and whether the nonresident parent is deceased. If the respondent reported that the nonresident parent was deceased, the student was considered not to have a nonresident parent.

For the multivariate analyses, the above categories were converted to approximate weeks of contact per year by first assigning a "number of days" value to the category (e.g., 12 days to once a month and 24 days to twice a month) and then dividing the result by 7 (to obtain estimated weeks). This simple arithmetic transformation does not affect the results.

Family characteristic variables

Family type. A measure of the student's living arrangements was created using information on the type of father (DADTYPE) and mother (MOMTYPE) present in the child's household at the time of the interview. Family type consisted of the following categories:

- Two biological or two adoptive parents;
- Biological mother and step or adoptive father;
- Biological father and step or adoptive mother;
- Biological, adoptive, or stepmother only;
- Biological, adoptive, or stepfather only; and
- Foster or other nonparents only.

Resident parents' education. Resident fathers' and resident mothers' education was obtained by combining information on the highest grade that the mother or father had attended and whether the mother or father had a high school diploma or GED. The variables for resident mother's and resident father's education consisted of the following categories:

- Less than a high school education;
- High school graduate or obtained GED;
- Some college or vocational school experience;
- Graduated from a 4-year college; and
- Professional or graduate school experience.

Mother's employment. This variable was created by combining information on whether the students' mother or female guardian worked in the last week, was on leave or vacation from a job, the number of hours per week she usually worked, and whether she was actively looking for work (by

checking with a public or private employment agency, checking with an employer directly, checking with friends or relatives, placing an ad, or sending a résume). The values for mother's employment are the following:

- Working 35 hours or more per week;
- Working less than 35 hours per week;
- Looking for work; and
- Not in the labor force.

Student outcome variables

Get mostly A's. If parents reported that their children received mostly A's in school, this dichotomous variable was assigned a value of 1. If parents reported that their children received mostly B's, C's, D's, or F's in school, the variable was assigned a value of 0. Some children attended schools that did not give letter grades. For these children, if parents reported that their children's work was *excellent*, the children were coded as receiving mostly A's, otherwise the children received a value of 0 on this variable.

Ever repeated a grade. This dichotomous variable is based on SEREPEAT. It takes a value of 1 if the child has ever repeated a grade and a value of 0 otherwise.

Ever suspended or expelled. This dichotomous variable is based on SESUSEXP. It takes a value of 1 if the parent reports that the child has ever been suspended or expelled and a value of 0 otherwise. The question on suspension or expulsion was only asked about children in grades 6 through 12, so the variable is set to missing for all other children.

Adjusted Odds Ratios

Tables 2, 3, and 5 and the tables contained in appendix B present the results of the logistic regression models as adjusted odds ratios. *Odds* are the ratio of the probability that an event will occur to the probability that it will not. An *odds ratio*, as the name implies, is the ratio of two odds. Odds ratios measure the change in the odds that an event will occur for each unit change in a given variable. When

the variable is dichotomous, the odds ratio measures the change in the odds as a result of belonging to one category versus the other. *Adjusted odds ratios* are estimates of the odds ratios after controlling for other factors.

An example will help clarify the concepts. The odds that fathers in two-biological-parent families and fathers in father-only families are highly involved in their children's schools can be calculated from figure 3. According to that figure, 28 percent of fathers in two-biological-parent families are highly involved in their children's schools, as are 17 percent of stepfathers. The *odds* that fathers in two-biological-parent families are highly involved in their schools are calculated as follows: 0.28/(1-0.28)=0.39. Similarly, the odds that stepfathers are highly involved in their children's schools are 0.17/(1-0.17)=0.20. The *odds ratio*, 0.39/0.20, measures the change in the odds that fathers are highly involved in their children's schools that is due to the type of family (two-biological-parent vs. stepfather family). In this case, the odds that fathers are highly involved in their children's schools are 1.95 times as large for fathers in two-biological-parent families as they are for stepfathers. This can also be expressed as a percent change in the odds calculated as (odds ratio-1)*100. A positive value indicates a percent increase in the odds, and a negative value indicates a percent decrease in the odds. Thus, one can also say that the odds that fathers are highly involved in their children's schools are 95 percent greater for fathers in two-biological-parent families as they are for stepfathers. This does not mean, however, that fathers in two-biological-parent families are 1.95 times more likely or are 95 percent more likely to be highly involved in their children's schools than stepfathers are. In this example, the *relative risk* or *relative probability* that they are highly involved is 0.28/0.17 or 1.65, which can also be expressed as a percent change in the relative probability, as follows: [(relative probability-1)*100=65]. Odds ratios will always overstate the difference in relative probabilities. It is always true, however, that whenever odds ratios are greater than 1, so is the relative probability. Similarly, whenever odds ratios are less than 1, so is the relative probability.

The reason that odds ratios are frequently used to summarize the results of logistic regression models is because odds ratios are easy to obtain and do not depend upon the values of the other variables in the model. Probabilities, on the other hand, change depending upon where on the logistic regression curve they are evaluated (i.e., they depend upon the values of the other variables in the model).

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Appendix A

Table A1.—Percent of students, by resident parents' involvement in school and family type: Students in grades 1-12, 1996

Parental involvement	Two biological parents		Stepfather families		Stepmother families		Mother-only families		Father-only families		Neither parent	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
Level of involvement												
Low	16	0.5	24	1.4	25	2.8	27	1.0	29	2.3	39	2.9
Moderate	21	0.4	27	1.5	25	2.4	25	1.8	25	2.2	24	2.4
High	62	0.5	48	1.5	50	3.4	48	1.1	46	2.7	37	3.0
Type of activity participated in												
General school meeting	82	0.5	73	1.4	74	2.8	69	1.1	68	2.6	60	2.8
Parent-teacher conference	73	0.5	70	1.5	68	3.2	70	1.0	63	2.8	55	3.1
School event	72	0.6	63	1.6	65	3.3	60	1.1	66	2.3	51	2.7
Volunteer	46	0.6	28	1.4	25	2.7	28	1.0	23	2.3	20	2.5

NOTE: Low involvement is participation in no or only one activity; moderate involvement is participation in two activities; high involvement is participation in three or four activities. s.e. is standard error. Because of rounding, percents may not add to 100. This table is the source for figures 1 and 2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

Table A2.—Percent of students, by resident mothers' involvement in school and family type: Students in grades 1-12, 1996

Mothers' involvement	Two biological parents		Stepfather families		Stepmother families		Mother-only families	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
Level of involvement								
Low	20	0.5	28	1.5	40	3.6	27	1.0
Moderate	22	0.5	28	1.5	22	2.1	25	0.8
High	58	0.6	45	1.6	39	3.4	48	1.1
Type of activity participated in								
General school meeting	78	0.5	70	1.5	62	3.4	69	1.1
Parent-teacher conference	68	0.5	67	1.6	52	3.6	70	1.0
School event	69	0.6	61	1.5	60	3.4	60	1.1
Volunteer	43	0.6	26	1.4	19	2.7	28	1.0

NOTE: Low involvement is participation in no or only one activity; moderate involvement is participation in two activities; high involvement is participation in three or four activities. s.e. is standard error. Because of rounding, percents may not add to 100. This table is the source for figures 3 and 5.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

Table A3.—Percent of students, by resident fathers' involvement in school and family type: Students in grades 1-12, 1996

Fathers' involvement	Two biological parents		Stepfather families		Stepmother families		Father-only families	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
Level of involvement								
Low	46	0.6	62	1.4	40	3.0	29	2.3
Moderate	26	0.5	22	1.3	26	2.7	25	2.2
High	28	0.5	17	1.2	35	2.9	46	2.7
Type of activity participated in								
General school meeting	57	0.6	42	1.4	62	2.9	68	2.6
Parent-teacher conference	39	0.6	27	1.5	53	3.0	63	2.8
School event	56	0.6	43	1.6	57	3.2	66	2.3
Volunteer	17	0.5	7	1.0	13	2.2	23	2.3

NOTE: Low involvement is participation in no or only one activity; moderate involvement is participation in two activities; high involvement is participation in three or four activities. s.e. is standard error. Because of rounding, percents may not add to 100. This table is the source for figures 3 and 6.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

Table A4.—Percent of students with selected student outcomes, by family living arrangement: Students in grades 1-12, 1996

Student outcome	Two biological parents		Stepfather families		Stepmother families		Mother-only families		Father-only families		Neither parent	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
Gets mostly A's	43	0.7	31	1.5	33	2.9	29	1.1	27	2.4	25	2.5
Ever repeated a grade	10	0.4	20	1.4	17	2.2	18	0.8	16	1.9	21	2.1
Ever been suspended or expelled*	13	0.6	22	1.7	26	3.7	27	1.3	23	3.1	33	3.0

* Applies only to students in grades 6 through 12.

NOTE: s.e. is standard error. This table is the source for figure 7.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

Table A5.—Percent of students, by nonresident parents' involvement in school and family type: Students in grades 1-12, 1996

Parental involvement	Nonresident fathers						Nonresident mothers					
	Stepfather families		Mother-only families		Neither parent		Stepmother families		Father-only families		Neither parent	
	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.	Percent	s.e.
Level of involvement												
No involvement	75	1.8	67	1.4	77	2.7	58	3.9	45	3.1	65	3.0
One activity only	12	1.3	13	0.8	10	2.1	14	2.4	12	1.6	13	2.4
Moderate	6	0.7	10	0.8	5	1.3	7	1.8	16	2.5	9	1.7
High	7	1.3	9	0.8	9	1.9	20	3.2	27	2.6	13	2.1
Type of activity participated in												
General school meeting	13	1.5	19	1.2	17	2.5	25	3.3	41	3.0	24	2.6
Parent-teacher conference	11	1.6	16	1.2	13	2.2	28	3.7	40	3.1	21	2.6
School event	20	1.7	24	1.3	15	2.3	35	3.6	40	2.9	25	2.6
Volunteer	3	0.6	4	0.5	2	0.9	10	2.0	16	2.2	6	1.4

NOTE: Restricted to students who have had contact with their nonresident parent in the last year. Moderate involvement is participation in two activities and high involvement is participation in three or four activities. s.e. is standard error. Because of rounding, percents may not add to 100. This table is the source for figures 9 and 10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

Appendix B

Table B1.—Adjusted odds ratios of mothers' and fathers' high level of involvement in their children's schools, by student and family characteristics: Students in grades 1-12, 1996

Characteristics	Mothers	Fathers
Student's age	0.84 *	0.93 *
Student's sex (male vs. female)	0.93	1.08
Student's race/ethnicity		
Black vs. white, non-Hispanic	0.79 *	0.86
Hispanic vs. white, non-Hispanic	0.79 *	0.85
Other, non-Hispanic vs. white, non-Hispanic	0.72 *	0.95
Student's household income	1.08 *	1.09 *
Parent's education	1.36 *	1.34 *
Mother's employment status		
Employed full time vs. employed part time	0.68 *	--
Looking for work vs. employed part time	0.90	--
Not in labor force vs. employed part time	0.79 *	--
Family type		
Stepfather family vs. two-biological-parent family	0.76 *	0.63 *
Stepmother family vs. two-biological-parent family	0.52 *	1.63 *
Single-parent family vs. two-biological-parent family	1.09	2.80 *
F	71.63	50.27
Degrees of freedom (numerator, denominator)	13,68	10,71

— Not applicable.

* $p < .05$.

NOTE: High involvement is participation in three or four activities. This table is the source for figure 4.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

Table B2.—Unadjusted and adjusted odds ratios of selected student outcomes, by selected student and family characteristics: Students in grades 1-12, 1996

Characteristic	Gets mostly A's		Ever repeated a grade		Ever suspended or expelled[1]	
	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
Student's age	--	0.93 *	--	1.20 *	--	1.14 *
Student's sex (male vs. female)	--	0.53 *	--	1.84 *	--	2.92 *
Student's race/ethnicity						
Black, non-Hispanic vs. white, non-Hispanic	--	0.75 *	--	1.22 *	--	1.88 *
Hispanic vs. white, non-Hispanic	--	0.90	--	0.97	--	0.68 *
Other, non-Hispanic vs. white, non-Hispanic	--	1.06	--	1.06	--	1.08
Student's household income	--	1.03 *	--	0.90 *	--	0.95 *
Parent's education	--	1.28 *	--	0.74 *	--	0.78 *
Family type						
Stepfather family vs. two-biological-parent family	0.61 *	0.69 *	2.18 *	1.73 *	1.99 *	1.80 *
Stepmother family vs. two-biological-parent family	0.64 *	0.74 *	1.88 *	1.51 *	2.39 *	2.05 *
Mother-only family vs. two-biological-parent family	0.55 *	0.76 *	1.99 *	1.12	2.61 *	1.77 *
Father-only family vs. two-biological-parent family	0.48 *	0.58 *	1.73 *	1.30	2.10 *	1.70 *
Neither parent vs. two-biological-parent family	0.44 *	0.68 *	2.34 *	1.08	3.42 *	1.92 *
F	30.86	67.38	25.35	86.11	34.81	37.21
Degrees of freedom (numerator, denominator)	5,76	12,69	5,76	12,69	5,76	12,69

* $p < .05$.

-- Not applicable.

[1] Applies only to students in grades 6 through 12.

NOTE: This table is the source for figure 8.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

Table B3.—Adjusted odds ratios of selected student outcomes, by mothers' and fathers' level of school involvement and family type: Students in grades 1-12, 1996

Characteristic	Two biological parents	Stepfather family	Stepmother family	Mother-only family	Father-only family
	Gets mostly A's				
Student's age	0.96 *	0.92 *	0.93	0.93 *	0.94
Student's sex (male vs female)	0.54 *	0.55 *	0.45 *	0.49 *	0.48 *
Student's race/ethnicity					
Black, non-Hispanic vs. white, non-Hispanic	0.71 *	0.68	0.68	0.80	0.81
Hispanic vs. white, non-Hispanic	0.97	0.84	0.17 *	1.03	0.49
Other, non-Hispanic vs. white, non-Hispanic	1.22	0.73	1.26	0.97	1.01
Mother's education	1.19 *	1.32 *	1.01	1.08	--
Father's education	1.17 *	0.85 *	1.34 *	--	1.52 *
Student's household income	1.02	1.03	0.97	1.02	0.94
Mother's school involvement					
Moderate vs. low	1.07	1.77 *	1.38	1.05	--
High vs. low	1.20 *	1.45	1.55	1.54 *	--
Father's school involvement					
Moderate vs. low	1.15	1.67 *	2.05	--	1.90 *
High vs. low	1.42 *	1.25	1.13	--	1.77
F	45.46	4.93	2.44	18.74	3.26
Degrees of freedom (numerator, denominator)	12,69	12,69	12,69	9,72	9,72
	Ever repeated a grade				
Student's age	1.16 *	1.16 *	1.15 *	1.21 *	0.94 *
Student's sex (male vs female)	1.80 *	1.99 *	2.86 *	1.92 *	0.48 *
Student's race/ethnicity					
Black, non-Hispanic vs. white, non-Hispanic	1.08	1.09	0.93	1.40 *	0.81
Hispanic vs. white, non-Hispanic	0.79	0.64	0.73	1.39	0.49
Other, non-Hispanic vs. white, non-Hispanic	0.77	1.68	0.14	1.23	1.01
Mother's education	0.78 *	0.62 *	1.27	0.81 *	--
Father's education	0.88 *	0.95	0.73	--	1.52 *
Student's household income	0.90 *	0.92	0.85	0.91 *	0.94
Mother's school involvement					
Moderate vs. low	0.79	0.83	1.62	0.60 *	--
High vs. low	0.84	0.88	0.84	0.62 *	--
Father's school involvement					
Moderate vs. low	0.73 *	0.86	0.53 *	--	1.90
High vs. low	0.67 *	0.90	0.66	--	0.10
F	30.20	11.18	1.67	17.18	2.61
Degrees of freedom (numerator, denominator)	12,69	12,69	12,69	9,72	9,72

See notes at end of table.

Table B3.—Adjusted odds ratios of selected student outcomes, by mothers' and fathers' level of school involvement and family type: Students in grades 1-12, 1996 (Continued)

Characteristic	Two biological parents	Stepfather family	Stepmother family	Mother-only family	Father-only family
	Ever suspended or expelled[1]				
Student's age	1.16 *	1.16 *	1.15 *	1.21 *	0.94 *
Student's sex (male vs female)	1.80 *	1.99 *	2.86 *	1.92 *	0.48 *
Student's race/ethnicity					
Black, non-Hispanic vs. white, non-Hispanic	1.08	1.09	0.93	1.40 *	0.81
Hispanic vs. white, non-Hispanic	0.79	0.64	0.73	1.39 +	0.49
Other, non-Hispanic vs. white, non-Hispanic	0.77	1.68	0.14	1.23	1.01
Mother's education	0.78 *	0.62 *	1.27	0.81 *	--
Father's education	0.88 *	0.95	0.73	--	1.52 *
Student's household income	0.90 *	0.92	0.85	0.91 *	0.94
Mother's school involvement					
Moderate vs. low	0.79	0.83	1.62	0.60 *	--
High vs. low	0.84	0.88	0.84	0.62 *	--
Father's school involvement					
Moderate vs. low	0.73 *	0.86	0.53	--	1.90
High vs. low	0.67 *	0.90	0.66	--	0.10
F	25.60	5.04	2.32	10.50	2.37
Degrees of freedom (numerator, denominator)	12,69	12,69	12,69	9,72	9,72

* $p < .05$.

-- Not applicable.

[1] Applies only to students in grades 6 through 12.

NOTE: Low involvement is participation in no or only one activity, moderate involvement is participation in two activities; high involvement is participation in three or four activities. This table is the source for table 2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

Table B4.—Adjusted odds ratios of selected student outcomes for students living in two-parent families, by mothers' and fathers' level of school involvement: Students in grades 1-12, 1996

Characteristic	Gets mostly A's	Ever repeated a grade	Ever suspended or expelled[1]
Students age	0.95 *	1.16 *	1.39 *
Student's sex (male vs. female)	0.54 *	1.88 *	3.10 *
Student's race/ethnicity			
Black, non-Hispanic vs. white, non-Hispanic	0.71 *	1.06	1.88 *
Hispanic vs. white, non-Hispanic	0.92	0.76 *	0.68 *
Other, non-Hispanic vs. white, non-Hispanic	1.15	0.90	1.06
Mother's education	1.19 *	0.76 *	0.94
Father's education	1.14 *	0.89 *	0.80 *
Student's household income	1.01	0.90 *	0.97
Family type			
Stepfather family vs. two-biological-parent family	0.54 *	1.49 *	1.58 *
Stepmother family vs. two-biological-parent family	0.60	1.28	2.46 *
Mother's school involvement			
Moderate vs. low	1.07	0.79	0.90
High vs. low	1.19 *	0.84 *	0.63 *
Moderate x stepfather family	1.72 *	1.04	0.85
High x stepfather family	1.30	1.02	0.82
Moderate x stepmother family	1.38	2.14	0.37 +
High x stepmother family	1.38	1.14	0.35 +
Father's school involvement			
Moderate vs. low	1.16 *	0.73 *	0.85
High vs. low	1.43 *	0.67 *	0.76
Moderate x stepfather family	1.36	1.23	1.88 +
High x stepfather family	0.78	1.34	2.16 *
Moderate x stepmother family	1.70	0.79	1.52
High x stepmother family	0.68	1.13	1.58
F	32.66	23.05	35.69
Degrees of freedom (numerator, denominator)	22,59	22,59	22,59

* $p < .05$.

[1] Applies only to students in grades 6 through 12.

NOTE: Low involvement is participation in no or only one activity; moderate involvement is participation in two activities; high involvement is participation in three or four activities. This table is the source for table 3.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

Table B5.—Adjusted odds ratios of selected student outcomes, by selected student and family characteristics and measures of nonresident fathers' involvement in students' lives: Students in grades 1-12, 1996

Characteristic	Gets mostly A's			Ever repeated a grade			Ever suspended or expelled[1]		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Student's age	0.91 *	0.91 *	0.91 *	1.22 *	1.22 *	1.22 *	1.14 *	1.14 *	1.14 *
Student's sex (male vs. female)	0.49 *	0.49 *	0.49 *	1.84 *	1.84 *	1.86 *	2.77 *	2.77 *	2.77 *
Student's race/ethnicity									
Black, non-Hispanic vs. white, non-Hispanic	0.79 *	0.79 *	0.79 *	1.31 *	1.28 *	1.28 *	1.58 *	1.57 *	1.58 *
Hispanic vs. white, non-Hispanic	0.98	0.99	0.98	1.07	1.04	1.05	0.66 *	0.65 *	0.66 *
Other, non-Hispanic vs. white, non-Hispanic	1.00	0.98	0.99	1.06	1.07	1.05	1.03	1.08	1.03
Student's household income	1.01	1.02	1.02	0.92 *	0.92 *	0.93 *	0.97	0.97	0.97
Resident parent's education	1.07 +	1.08 *	1.07	0.77 *	0.76 *	0.76 *	0.84 *	0.83 *	0.84 *
Family type									
Mother-only vs. stepfather family	0.93	0.96	0.93	0.73 *	0.72 *	0.73 *	1.19	1.14	1.20
Nonparent guardian vs. stepfather family	0.90	0.91	0.90	0.61 *	0.63 *	0.63 *	1.09	1.08	1.09
Nonresident father's involvement in school									
Moderate-high vs. contact in last year, no school involvement	1.39 *	--	1.48 *	0.55 *	--	0.65 +	0.41 *	--	0.43 *
One activity vs. contact in last year, no school involvement	1.32 *	--	1.19 *	0.58 *	--	0.64 *	0.49 *	--	0.51 *
No contact in last year vs. contact in last year, no school involvement	0.89	0.83 +	0.86	0.99	0.94	0.91	0.82	0.84	0.80
Never contact with child vs. contact in last year, no school involvement	1.08	1.01	1.05	0.80	0.76	0.73	0.61 *	0.63 *	0.60 *
Nonresident father paid any child support in last year	1.19 *	1.21 *	1.19 *	0.73 *	0.70 *	0.72 *	0.56 *	0.55 *	0.55 *
Nonresident father's amount of contact in the last year		1.00	0.99		0.97 *	0.98 +		0.98 *	0.99
F	11.62	12.82	10.78	21.80	24.21	20.60	9.69	10.88	9.19
Degrees of freedom (numerator, denominator)	14,67	13,68	15,66	14,67	13,68	15,66	14,67	13,68	15,66

* $p < .05$, + $p < .10$

-- Not applicable.

[1] Applies only to students in grades 6 through 12.

NOTE: Moderate involvement is participation in two activities; high involvement is participation in three or four activities. This table and table B6 are the sources for table 5.

SOURCE: U.S. Department of Education, National Center For Education Statistics, 1996 National Household Education Survey.

Table B6.—Adjusted odds ratios of selected student outcomes, by selected student and family characteristics and measures of nonresident mothers' involvement in students' lives: Students in grades 1-12, 1996

Characteristic	Gets mostly A's			Ever repeated a grade			Ever suspended or expelled[1]		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Student's age	0.91 *	0.91 *	0.91*	1.22 *	1.22*	1.22*	1.12*	1.12*	1.12*
Student's sex (male vs. female)	0.46 *	0.46 *	0.46*	1.72 *	1.72*	1.72*	2.25*	2.25*	2.25*
Student's race/ethnicity									
Black, non-Hispanic vs. white, non-Hispanic	0.79	0.76	0.79	1.32	1.34	1.34	1.19	1.19	1.20
Hispanic vs. white, non-Hispanic	0.59	0.56	0.59	0.61	0.63	0.62	0.47	0.49	0.48
Other, non-Hispanic vs. white, non-Hispanic	0.92	0.93	0.93	1.15	1.15	1.16	0.84	0.84	0.85
Student's household income	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Resident parent's education	1.26 *	1.26 *	1.26*	0.73 *	0.74*	0.73*	0.90	0.90	0.90
Family type									
Father-only vs. stepmother family	0.85	0.85	0.84	0.90	0.90	0.90	0.90	0.90	0.90
Nonparent guardian vs. stepmother family	0.93	0.93	0.91	0.83	0.81	0.81	1.26	1.26	1.26
Nonresident mother's involvement in school									
Moderate-high vs. contact in last year, no school involvement	1.14	--	1.25	0.82	--	0.97	0.79	--	0.93
One activity vs. contact in last year, no school involvement	1.86 *	--	1.93*	0.78	--	0.83	0.77	--	0.82
No contact in last year vs. contact in last year, no school involvement	1.43	1.26	1.39	0.46 *	0.44*	0.43*	1.08	1.04	1.01
Nonresident mother paid any child support in last year	1.12	1.15	1.11	0.80	0.78	0.79	0.59	0.57	0.58
Nonresident mother's amount of contact in the last year	--	1.00	0.99	--	0.98	0.98	---	0.98	0.99
F	5.38	5.19	4.98	6.58	8.11	7.04	2.65	3.01	2.64
Degrees of freedom (numerator, denominator)	13,68	12,69	14,67	13,68	12,69	14,67	13,68	12,69	14,67

* $p < .05$, + $p < .10$

-- Not applicable.

[1] Applies only to students in grades 6th through 12th.

NOTE: Moderate involvement is participation in two activities; high involvement is participation in three or more activities. Because of rounding, percents may not add to 100. This table and table B5 are the sources for table 5.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996 National Household Education Survey.

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